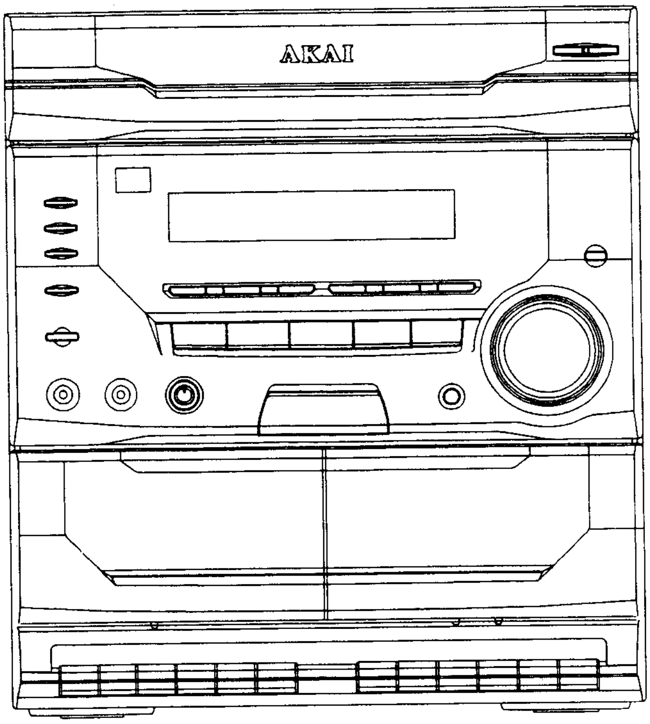
AKAI-01249

TX-220/320
(AC-220/SR-225)
(AC-320/SR-425)

AKAI SERVICE MANUAL



MINI STEREO COMPONENT SYSTEM

MODEL AC-220/SR-225
MODEL AC-320/SR-425

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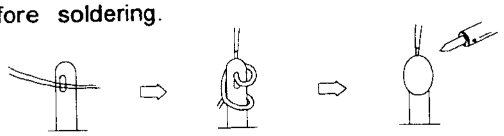
SAFETY INSTRUCTIONS

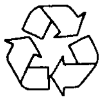
PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ (*) symbol parts are critical for safety. Replace them only with parts whose numbers are specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selection switches, RF cables, noise-blocking capacitors, noise-blocking filters, etc.
3. Use specified internal Wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulating Tape
   2) PVC tubing
   3) Spacers (insulating barriers)
   4) Insulating sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitor, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires do not contact heat generating parts (heat sinks, oxide metal film resistors, fusible resistors, etc.)
7. Check if replaced wires do not contact sharply edged or pointed parts.
8. Also check areas surrounding repaired parts.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT



Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.
Please leave them at an appropriate depot.

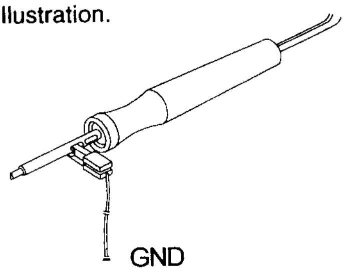
SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to check if exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts, (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohm paralleled with a 0.15 μ F capacitor, under the unit's normal working condition.
The leakage-current should be less the 0.5mA rms AC.
The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch "ON" (if included). The resistance should be more than 2.2Mohms.

PRECAUTIONS IN REPAIRING

When repairing or adjusting the unit, please note the following points

1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
2. When the base is removed for repair or adjustment. Make sure that there are no metal objects between the P.C board or the mecha parts and the base.
3. The Micro-Computer and the CD signal processing ICs may be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration.



4. Do not loosen any screws in the pick-up block. Please refer to NOTE when replacing the pick up block.
5. To avoid hazardous invisible Laser Radiation, do not look at the Laser Beam (Objective lens) directly.
6. On model for some countries, laser warning labels are affixed on and inside of the unit as shown below. For your safety, read these labels carefully before repairing or adjusting the unit.

CAUTION

The use of controls or adjustments or the performance of procedures other than those specified herein may result in hazardous radiation.

[EUROPE, SCANDINAVIA, UK and AUSTRALIA]

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Label affixed on the rear panel of the unit

CAUTION: INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED, AVOID EXPOSURE TO BEAM

ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING. SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDÆTTELSE FOR STRÅLING.

VARO: AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLA LASERSÄTELYLLE
ÄLÄ KATSO SÄTEESEEN!

VARNING: OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD BETRAKTA EJ STRÅLEN!

Label affixed on the CD MECHA BLOCK

INFORMATION

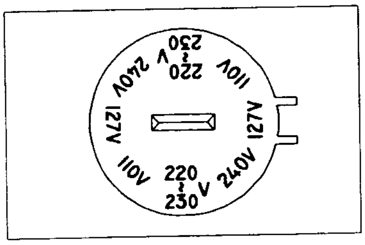
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbol	Prinncipal Destination
A	USA
B	UK
E	Europe (except, UK)
S	Australia
V	Germany
U	Universal
Y*	Custom version

VOLTAGE CONVERSION(U Y Model only)

Before connecting the power cord, set the VOLTAGE SELECTOR located on the rear panel of the AC-220/320 so that the correct voltage for your area is indicated.



[U5,U8, Y6, Y7]

SPECIFICATIONS

[Tuner Section]

Frequency range

FM	87.5-108MHz(50KHz step)
MW	530-1710KHz(U8)
	531-1602KHz (except U8)
LW	144-288KHz(1KHz step) (E1/E2/E3/B1 only)
SW	3.8-12.5MHz(5KHz step) (Y7 only)

USABLE SENSITIVITY

FM	(E1/E2/E3/B1) 20.2dBf(IHF,3%THD)
	(S1/U5/U8/Y6/Y7) 16.2dBf(IHF,3%THD)
MW	500μVm
LW	800μVm
SW	800μVm

S/N Ratio(IHF)

FM	(MONO 75dB, STEREO 65dB)
MW	40dB
LW	30dB
SW	30dB
Stereo separation	40dB(at 1KHz)

[AMPLIFIER Section]

Power output	(AC-220) 14W+14W (6ohms,10%THD,EIAJ)
	10W+10W (6ohms,1%THD,DIN)
	(AC-320) 27W+27W (6ohms,10%THD,EIAJ)
	20W+20W (6ohms,1%THD,DIN)

Input sensitivity

Line input(AUX IN)	350mV/47KΩ
channel separation	53dB
Frequency response	30Hz-60KHz (-3dB)

[DECK SECTION]

Track system	4track, 2channel system
Frequency response	40Hz-15KHz (Normal Tape, +3dB/-7dB)
Wow & Flutter	0.1%(WRMS)
S/N ratio	53dB
Total harmonic distortion	less than 1%(at 315Hz)
Channel separation	43dB

[CD SECTION]

Pick up system	3Beam Laser
Sampling frequency	44.1KHz
Error correction system	Cross interleave read solomon
Number of channels	2Channel
Frequency response	20Hz-20KHz
Wow & Flutter	Below measurable limits
S/N ratio	83dB
Total harmonic distortion	0.035% (at 1KHz)
Channel separation	73dB(at 1KHz)
Dynamic range	82dB (at 1KHz)

[GENERAL]

Power requirement	
E1/E2/E3/B1/S1	AC 220-230V/50Hz
U5/U8/Y6/Y7	AC110/127/220-230/240V, 50/60Hz
Power consumption	40W/AC-220, 50W/AC-320
Weight	6.6Kg/AC-220, 7.1Kg/AC-320

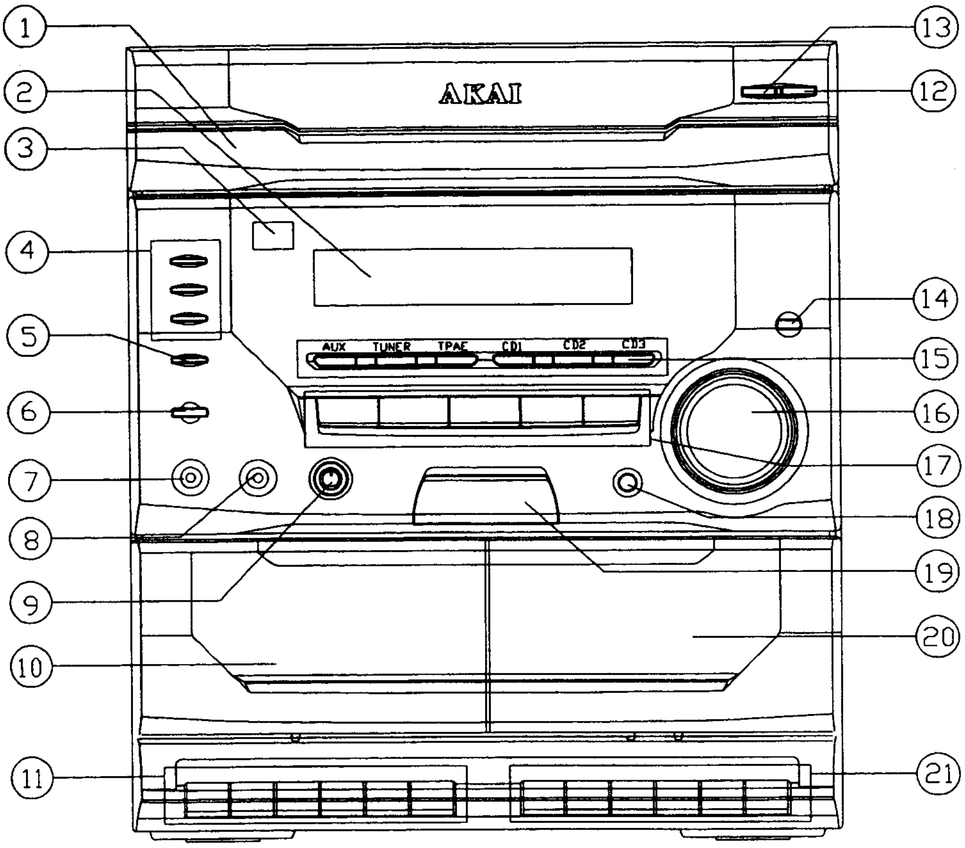
[SPEAKER SECTION]

ITEM	**SR-425**	**SR-225**
System Constructions	3-way 3-speakers	3-way 3-speakers
Woffer Unit	135mm Cone type	135mm Cone type
Midrange Unit	65mm Cone type	65mm Cone type
Tweeter Unit	20mm dome type (piezo)	20mm dome type (piezo)
System Impedance	6Ω	6Ω
Maxium Power Input	80w	30w
Sensitivity	more than 87dB/w/m	more than 87dB/w/m
Frequency Response	60Hz-20KHz	60Hz-20KHz
Harmonic Distortion	less than 3%	less than 3%
Enclosure Type	bass reflex type	bass reflex type
Units Layout	L/R mirror layout	L/R mirror layout
Dimensison	200(W)X305(H)X265(D)	200(w)X305(H)X235(D)
NetWeight	3.6Kg/pc	2.8Kg/pc

For improvement purposes, specifications and design are subject to change without notice.

CONTROLS

A MAIN UNIT


1
2
3
4
5
6
7
8
9
10
11
AKAI
AUX
TUNER
TPAE
CD1
CD2
CD3
13
12
14
15
16
17
18
19
20
21

1. Disc tray
2. System FL display
3. Remote sensor
4. TIMER operation buttons
5. CH MEMO button
6. DUBBINGx1/x2 button
7. PHONES jack
8. MIC jack
9. Mixing control
10. Tape deck I cassette compartment
11. Tape deck I operation buttons
12. TRAY OPEN/CLOSE button
13. DISC CHANGE button
14. BALANCE button
15. Input source select buttons
16. Volume control
17. Multi-function buttons
18. DYNAMIC SUPER BASS button
19. POWER ON/STANDBY button
20. Tape deck II cassette compartment
21. Tape deck II operation buttons

I. DISASSEMBLY

1-1. REMOVE OF MAIN COVER

1) Remove the seven screws on back and six screws on both sides.
2) Remove the MAIN COVER

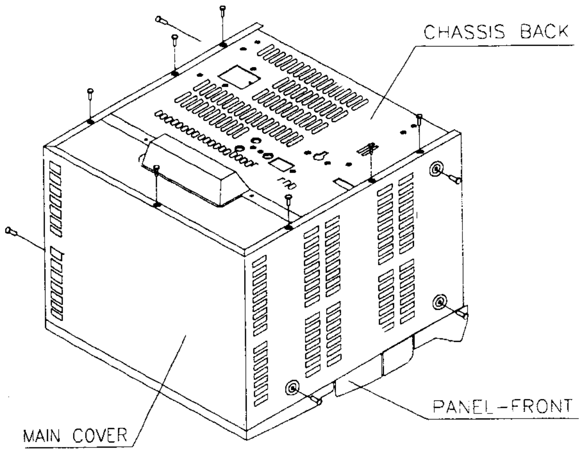

CHASSIS BACK
MAIN COVER
PANEL-FRONT

Fig. 1-1

1-2. REMOVE OF CD MECHA & FRONT PANEL

1) Remove the CD door (B)
2) Remove the four screws (A) on both sides and disconnect three connectors and the flat cable from the CD/TUNER/TAPE P.C.B.
3) Remove the CD player block
4) Remove the three screws (B) and two screws (C) on both sides.
5) Remove the FRONT PANEL

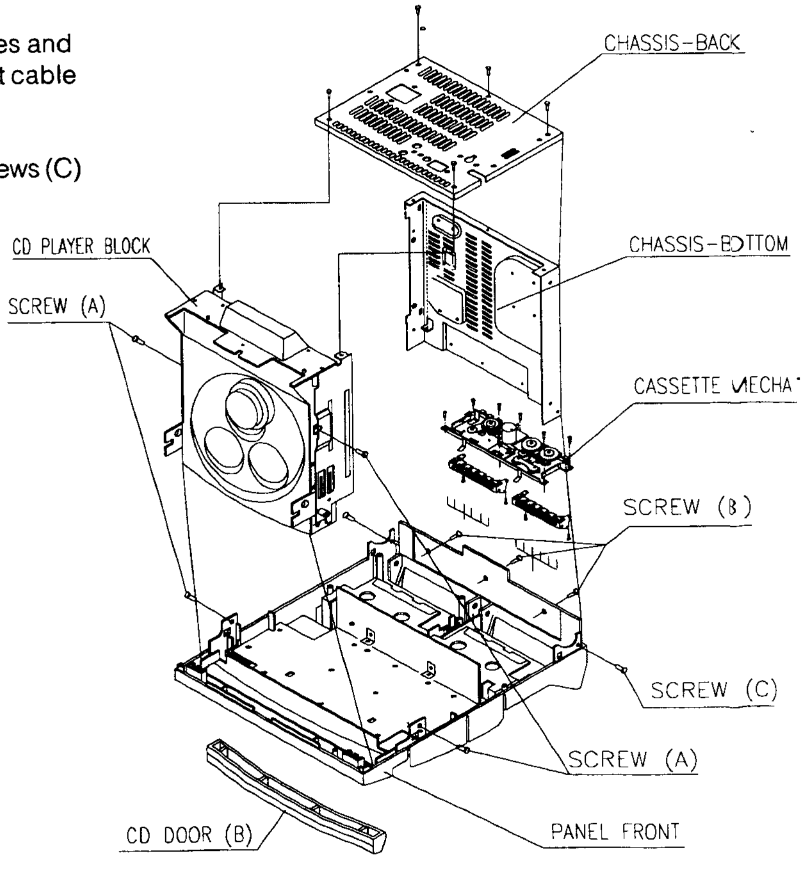

CHASSIS-BACK
CD PLAYER BLOCK
CHASSIS-BOTTOM
SCREW (A)
CASSETTE MECHA
SCREW (B)
SCREW (C)
SCREW (A)
PANEL FRONT
CD DOOR (B)

Fig. 1-2

II. PRINCIPAL PARTS LOCATION

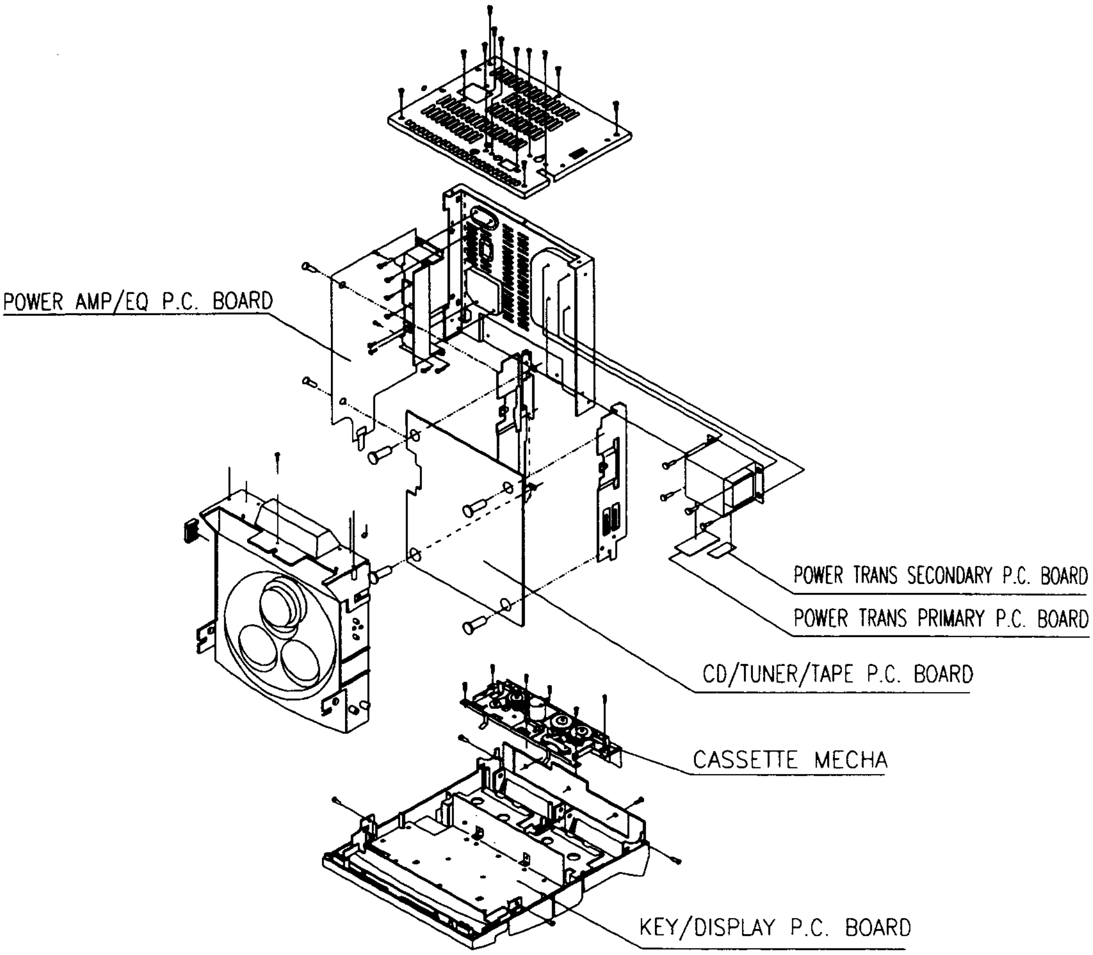

POWER AMP/EQ P.C. BOARD
POWER TRANS SECONDARY P.C. BOARD
POWER TRANS PRIMARY P.C. BOARD
CD/TUNER/TAPE P.C. BOARD
CASSETTE MECHA
KEY/DISPLAY P.C. BOARD

Fig. 2-1

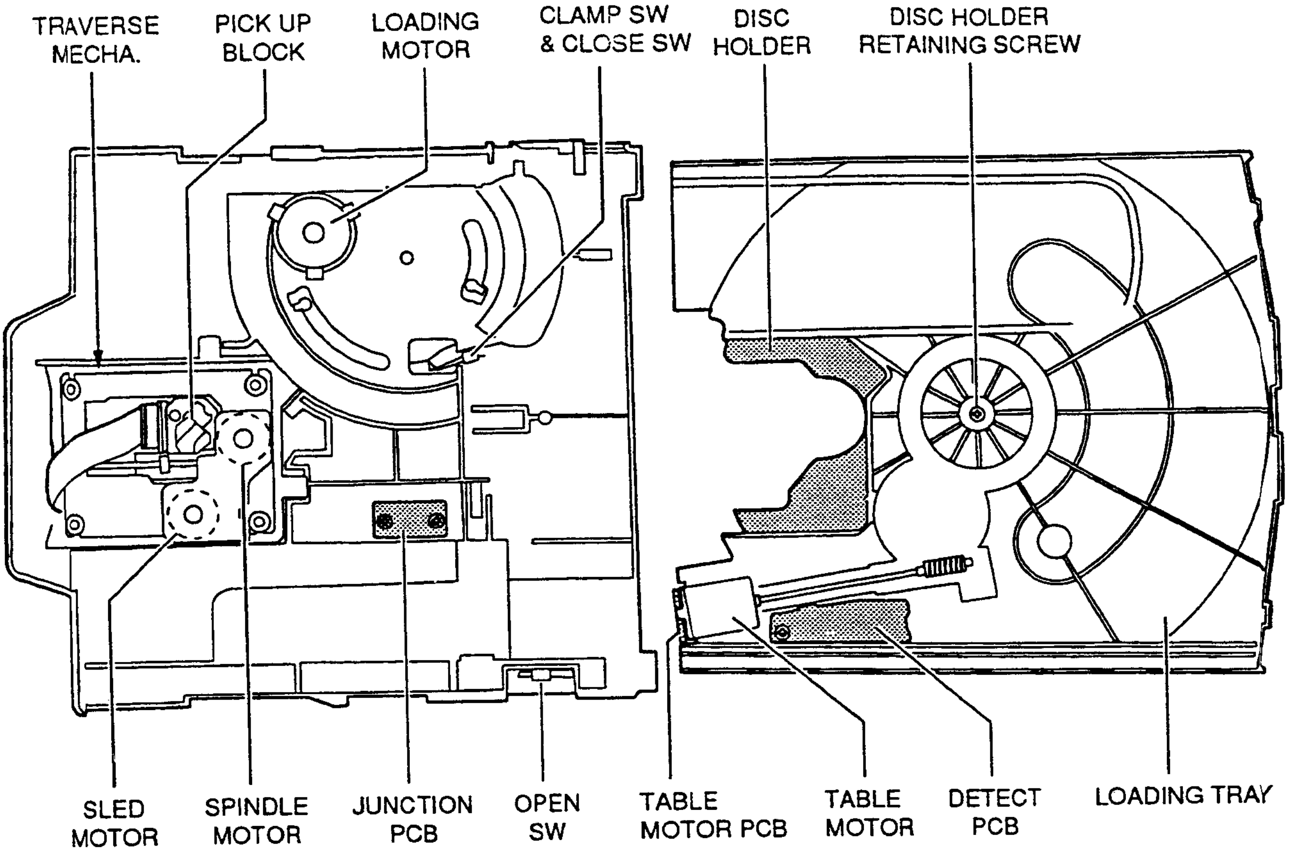

TRAVERSE MECHA.
PICK UP BLOCK
LOADING MOTOR
CLAMP SW & CLOSE SW
DISC HOLDER
DISC HOLDER RETAINING SCREW
SLED MOTOR
SPINDLE MOTOR
JUNCTION PCB
OPEN SW
TABLE MOTOR PCB
TABLE MOTOR
DETECT PCB
LOADING TRAY

Fig. 2-2 CD PLAYER BLOCK

III CD PLAYER BLOCK

3-1. DISASSEMBLY

* Remove the CD PLAYER BLOCK before proceeding.

3-1-1. Removal of the TRAVERSE MECHA.

1) Remove the TRAVERSE COVER by releasing the two tabs in the direction of the arrow as shown in Fig. 3-1.

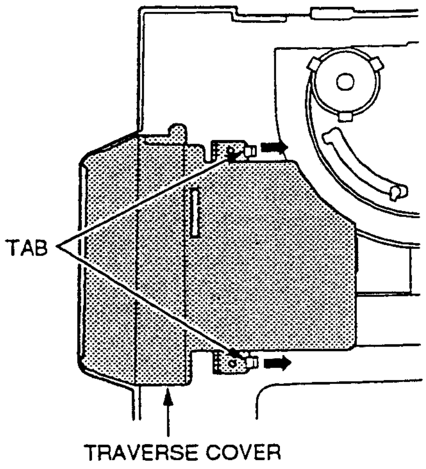

TAB
TRAVERSE COVER

Fig. 3-1

2) Short the circuit on the PICK UP BLOCK with solder as shown in Fig. 3-2.

Note : To protect the laser diode from damage caused by high voltage static electricity, a part of the PCB on the PICK UP BLOCK has to be shorted before disconnecting the connectors. After replacement, be sure to connect the two connectors and then remove the solder of the shorted circuit before turning the power ON.

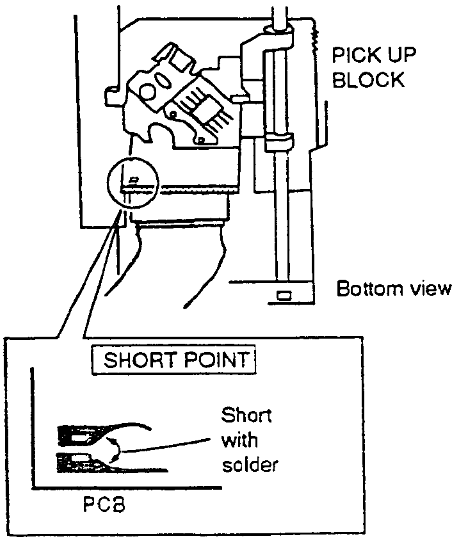

PICK UP BLOCK
Bottom view
SHORT POINT
Short with solder
PCB

Fig. 3-2

3) Disconnect the two connectors carefully.

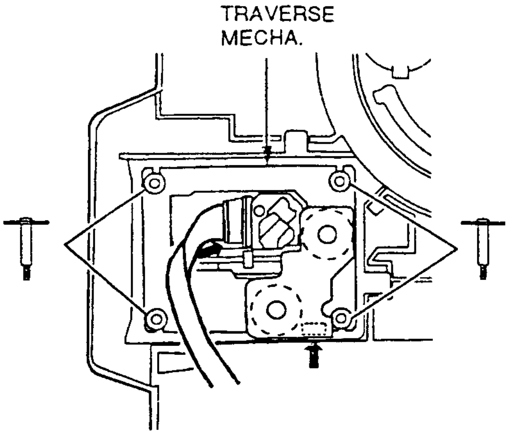

TRAVERSE MECHA.

Fig. 3-3

4) Remove the four retaining screws, then remove the TRAVERSE MECHA.
5) Proceed in the reverse order for installation but never unsolder the shorted circuit before connecting the three connectors.

3-1-2. Replacement of the SLED MOTOR

1) Remove the TRAVERSE MECHA (refer to section 3-1-1).
2) Unsolder the leads of the SLED and SPINDLE MOTORs then remove the MOTOR PCB.

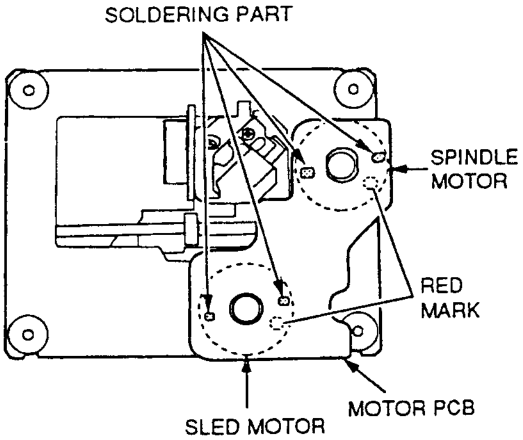

SOLDERING PART
SPINDLE MOTOR
RED MARK
MOTOR PCB
SLED MOTOR

Fig. 3-4

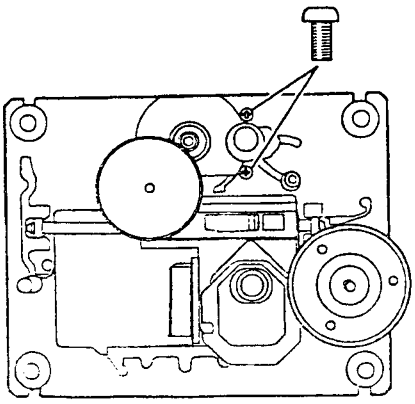


Fig. 3-5

3) Remove the two retaining screws, then remove the SLED MOTOR.
Next, extract the plastic gear from the motor shaft and attach it onto the new motor's shaft.
4) Reassemble in the reverse order.

About the SPINDLE MOTOR:
Replacement of the SPINDLE MOTOR itself is not recommended, because adjustment of the TURN TABLE height is quite critical and requires the use of a special jig.

3-1-3. Replacement of the PICK UP BLOCK

1) Remove the TRAVERSE MECHA (refer to section 3-1-1).
2) While pressing the Ⓐ stopper upwards, pull the SLIDE SHAFT to the right to remove the PICK UP BLOCK, then replace the PICK UP BLOCK.

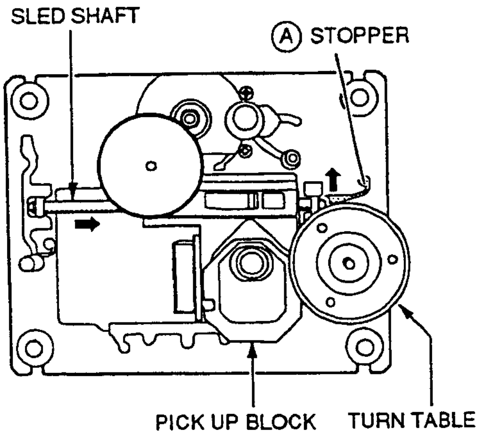


Fig. 3-6

3) Reassemble in the reverse order.

3-1-4. Replacement of the LOADING MOTOR

1) Slide the protruding part of the GEAR HOLDER PART in the direction of the arrow, then pull out the TRAY BLOCK.

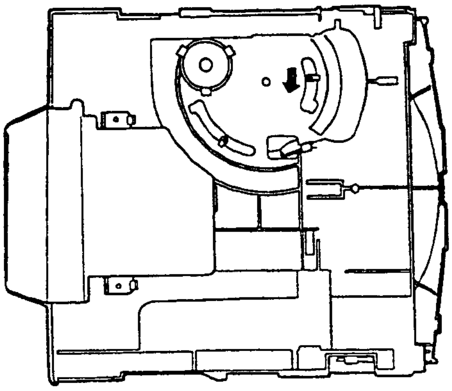


Fig. 3-7

2) Unhook the LOADING BELT with tweezers.

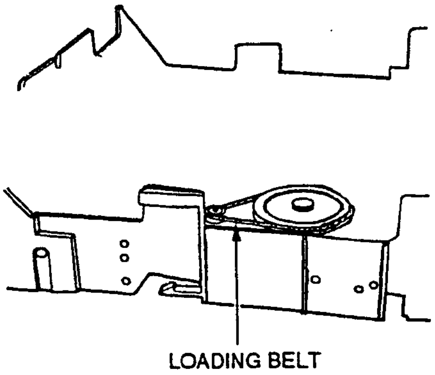


Fig. 3-8

3) Unsolder the lead wires of the LOADING MOTOR with a soldering iron.
4) While releasing the LOADING MOTOR's three retaining hooks, push the motor pully part down with your middle finger to remove the LOADING MOTOR, then replace it.

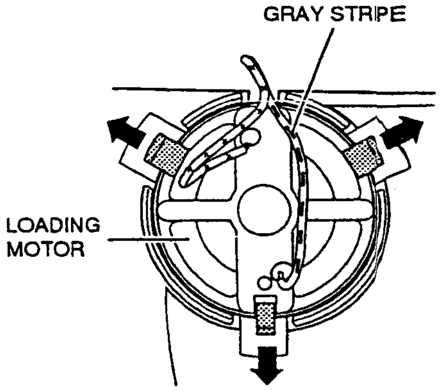


Fig. 3-9

5) Reassemble in the reverse order. Make sure that the wire with the gray stripe is connected to the motor's O marked terminal when soldering.

3-1-5. Removal of the TRAY BLOCK

1) If the TRAY BLOCK is in the "in" position, slide the protruding part of the GEAR HOLDER PART in the direction of the arrow and pull out the TRAY BLOCK slowly (refer to Fig. 3-7).
2) In order to disengage the two stoppers, carefully press the Ⓐ part of the TRAY BLOCK downwards while pulling the TRAY BLOCK out as shown in Fig. 3-10.

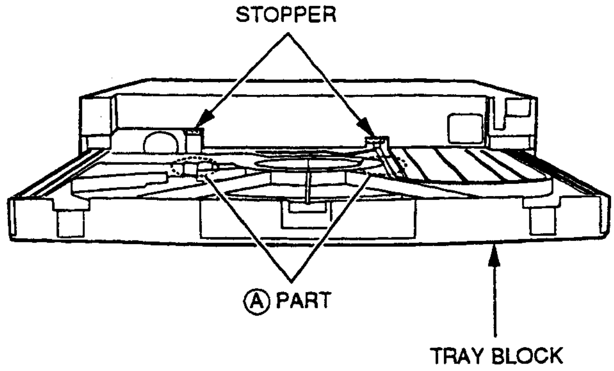

STOPPER
Ⓐ PART
TRAY BLOCK

Fig. 3-10

4) Remove the TRAY BLOCK by pulling it out carefully.
5) Reassemble in the reverse order for installation. When reattaching the TRAY BLOCK to the chassis, carefully align the guides on both sides of the TRAY BLOCK with their corresponding rails on the chassis. Also, make sure that any one of the reference marks on the DISC HOLDER aligns with the reference mark on the LOADING TRAY.

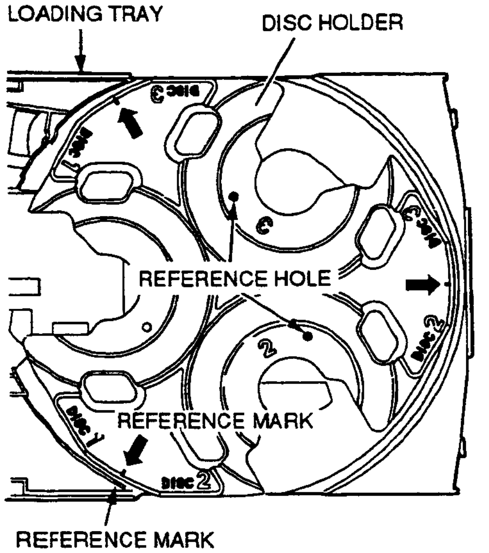

LOADING TRAY
DISC HOLDER
REFERENCE HOLE
REFERENCE MARK
REFERENCE MARK

Fig. 3-11

Next, move the head of the GEAR HOLDER PART in the direction of the arrow before engaging the stoppers as shown in Fig. 3-12.

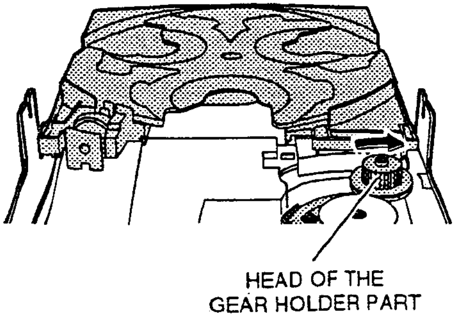

HEAD OF THE
GEAR HOLDER PART

Fig. 3-12

3-1-6. Replacement of the TABLE MOTOR

1) Remove the TRAY BLOCK (refer to section 3-1-5).
2) Remove the DISC HOLDER retaining screw then remove the DISC HOLDER.

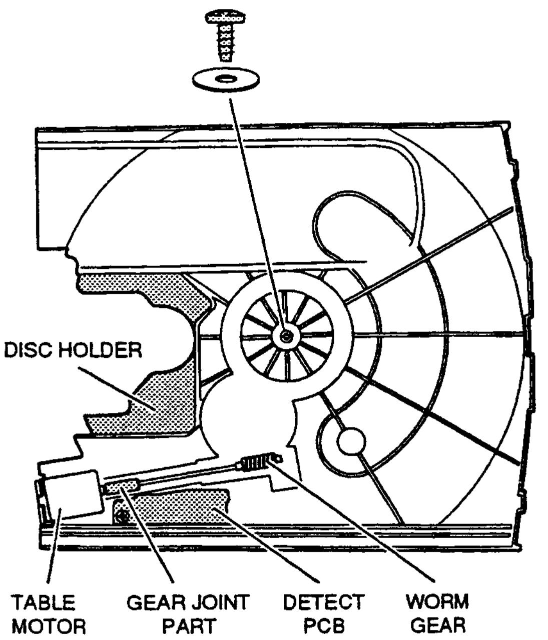

DISC HOLDER
TABLE MOTOR
GEAR JOINT PART
DETECT PCB
WORM GEAR

Fig. 3-13

3) Unsolder the leads of the TABLE MOTOR and remove the TABLE MOTOR PCB.

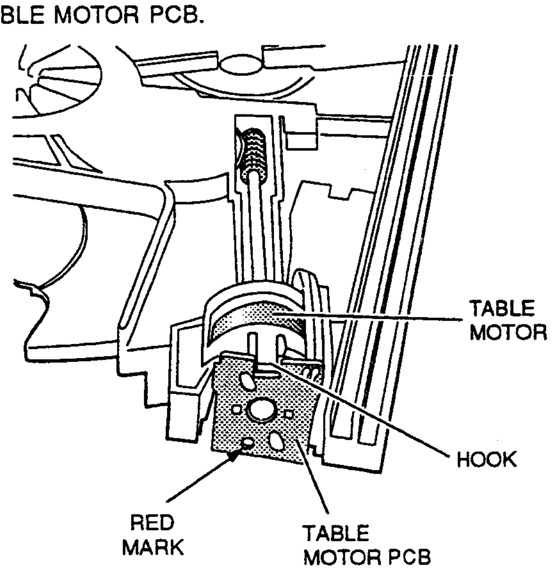


TABLE MOTOR
HOOK
RED MARK
TABLE MOTOR PCB

Fig. 3-14

4) Remove the TABLE MOTOR by pulling it out while opening the TABLE MOTOR retaining hook. Next, remove the WORM GEAR BLOCK by pulling the GEAR JOINT PART out and attach it to the new motor as shown in Fig. 3-13.
5) Reassemble in the reverse order.
   - When soldering the TABLE MOTOR PCB on the TABLE MOTOR, the TABLE MOTOR's red mark must be visible through the hole on the TABLE MOTOR PCB.
   - When attaching the DISC HOLDER on the LOADING TRAY, make sure to place the DISC HOLDER so that any one of the three reference marks aligns with the reference mark on the LOADING TRAY (any two reference holes on the DISC HOLDER align with the corresponding reference holes on the LOADING TRAY accordingly). (Refer to Fig. 3-11)

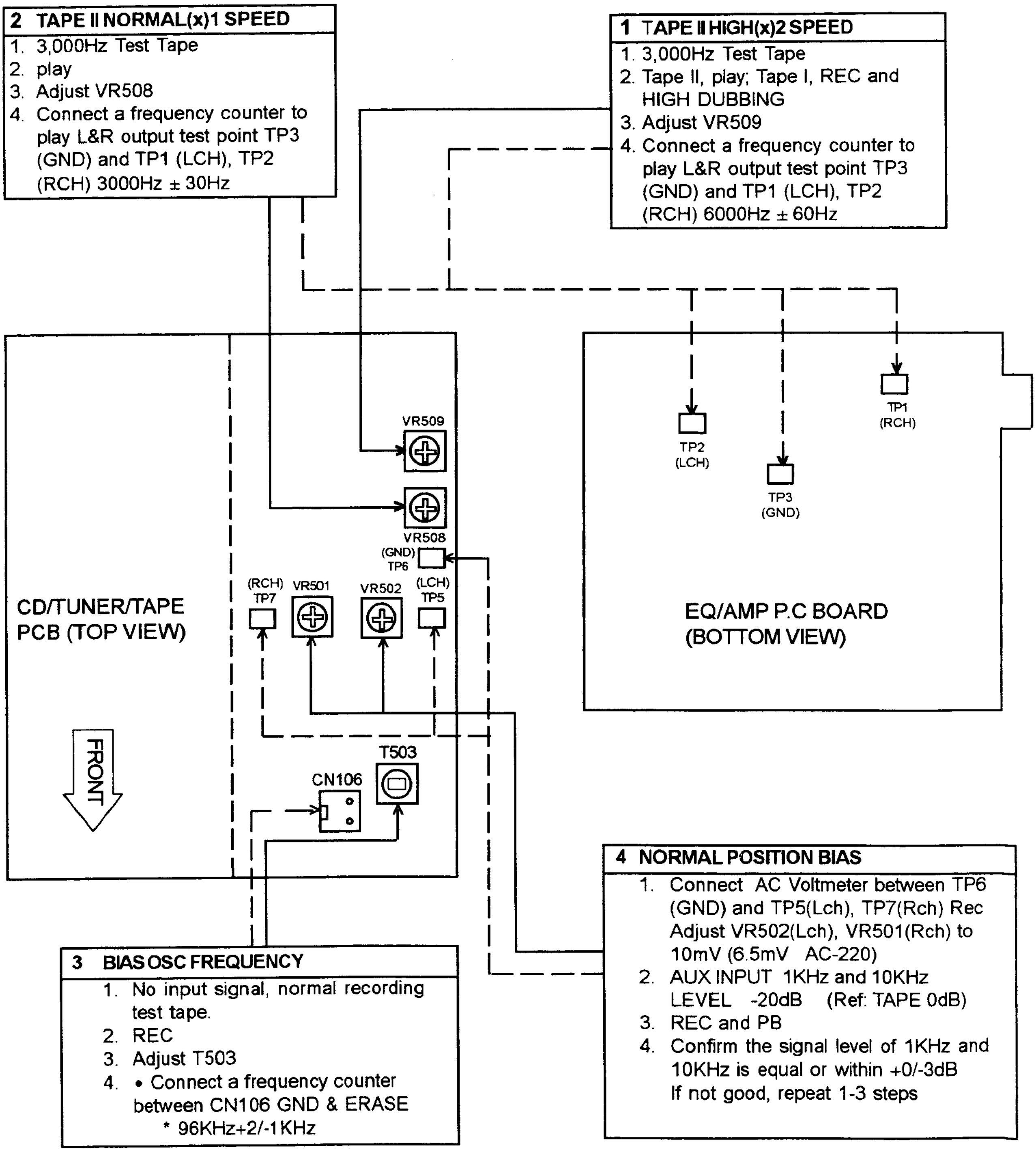
IV. ELECTRICAL ADJUSTMENT

4-1. CASSETTE DECK ELECTRICAL ADJUSTMENT

PRECAUTIONS: Before adjustment, clean and demagnetize the heads and tape guides.

ADJUSTMENT STEP:

1. TEST TAPE/TEST CONDTION
2. MODE
3. CHECK POINT/ADJUSTMENT PART
4. REMARK (• --->Test point) AND RESULT (*—>Adjustment part)


VR509
VR508
(GND) TP6
(RCH) TP7
VR501
VR502
(LCH) TP5
CD/TUNER/TAPE PCB (TOP VIEW)
FRONT
T503
CN106
TP1 (RCH)
TP2 (LCH)
TP3 (GND)
EQ/AMP P.C BOARD (BOTTOM VIEW)

2 TAPE II NORMAL(x)1 SPEED

1. 3,000Hz Test Tape
2. play
3. Adjust VR508
4. Connect a frequency counter to play L&R output test point TP3 (GND) and TP1 (LCH), TP2 (RCH) 3000Hz ± 30Hz

1 TAPE II HIGH(x)2 SPEED

1. 3,000Hz Test Tape
2. Tape II, play; Tape I, REC and HIGH DUBBING
3. Adjust VR509
4. Connect a frequency counter to play L&R output test point TP3 (GND) and TP1 (LCH), TP2 (RCH) 6000Hz ± 60Hz

3 BIAS OSC FREQUENCY

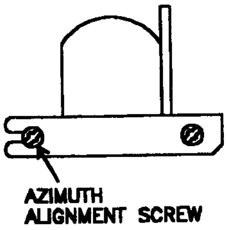
1. No input signal, normal recording test tape.
2. REC
3. Adjust T503
4. • Connect a frequency counter between CN106 GND & ERASE
   * 96KHz+2/-1KHz

4 NORMAL POSITION BIAS

1. Connect AC Voltmeter between TP6 (GND) and TP5(Lch), TP7(Rch) Rec Adjust VR502(Lch), VR501(Rch) to 10mV (6.5mV AC-220)
2. AUX INPUT 1KHz and 10KHz LEVEL -20dB (Ref: TAPE 0dB)
3. REC and PB
4. Confirm the signal level of 1KHz and 10KHz is equal or within +0/-3dB
   If not good, repeat 1-3 steps

5 HEAD AZIMUTH ALIGNMENT(TAPE I & II)

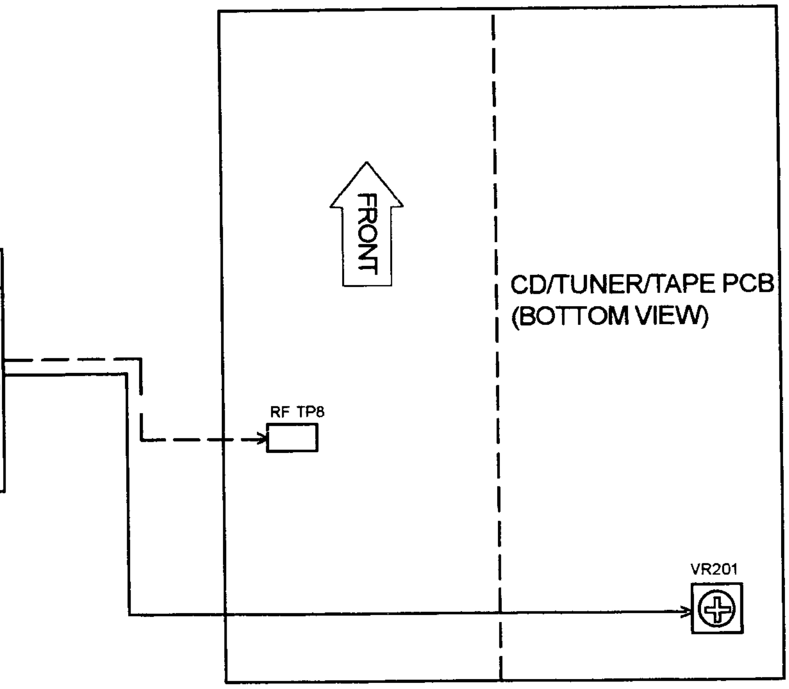
1. 10KHz Test Tape
2. play
3. Adjust Head Azimuth screw
4. Connect an oscilloscope to play L&R output test point TP1/TP2/TP3 Maximum output level


AZIMUTH
ALIGNMENT SCREW

4-2. CD ELECTRICAL ADJUST

6 FOCUS BIAS

1. Test disc SONY YEDS-18
2. CD play
3. Adjust VR201
4. Connect an 40MHz oscilloscope to the RF TP8 & GND, adjust the RF signal to maximum
   *1.2V p-p(ONLY FOR REFERENCE)


FRONT
CD/TUNER/TAPE PCB
(BOTTOM VIEW)
RF TP8
VR201

V. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list the part No., Model No. and the description of each part. Otherwise, the nondelivery of the part or the delivery of a wrong part may result.
2. Please make sure that part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in parts list of preliminary service manual may have been the subject of changes, please use this parts list for all future reference.

[NOTE]

1. This parts list lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts list shows those parts in the parts list which are considered particularly important for service.
3. Parts not shown in the parts list and "Common List for Service Parts" will not in principle be supplied.

WARNING

⚠ (*) INDICATED SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVEERTISSEMENT

⚠ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉDE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. REMOTE P.C. BOARD

REF. NO.	PART NO.	DESCRIPTION
CF001	007-300455-63	RESONATOR CRK455 455KHz
IC001	033-806122-13	REMOTE TRANSMITTER UPD6122G-001
LED001	130-600101-10	INFRA RED EMITTINT DIODE EL-1L1
PCB	090-385604-01	REMOTE BOARD T=1.6mm 94HB (46X119mm)
Q001	031-468050-03	TRANSISTOR NPN KTC8050C
	210-010101-02S	REMOTE BATTERY COVER

2. ASS'Y KEY/DISPLAY P.C. BOARD

REF. NO.	PART NO.	DESCRIPTION
D413	030-560031-00	LED YELLOW DIODE "MYB31CA"
D401-412	030-560034-10	LED MYB34C YELLOW
D414-419	030-540034-04	LED MGB34D GREEN
FLT	035-131610-00	"SVA-16MM10"
HS SW	046-080001-00	PUSH SW VPS-800
IC401	033-002401-42	XL24C01A
IC403	034-B00501-12	MCU AKWBCA M38184MB-191FP
L401	005-101056-00	FIXED INDUCTOR COIL LONELY "SPO203-101J-7"
MIC JACK	061-121406-00	MIC JACK VERTICAL HSJ1406-01-010
MIC VOLUME	011-202298-00	ROTARY VOLUME 2KB "ALPS"
Q401-410	031-279014-032	TRANSISTOR NPN SS9014C
RH	036-600446-01	REMOCON RECEIVER SPS-446-1
SW402/403/404/414/412/ SW413/414/415/416/417/ SW418/423/424/425/426/427	046-101102-62	TACK SW 1T1102
SW408/419/420/428	046-101102-627	TACK SWITCH "I.T.1102P"
SW421/422	046-100116-48	TACK SW "TM116A"
X401	037-032768-10	CRYSTAL 32.768MHz
X402	007-208000-06	CERAMIC RESONATOR CST 8.00 MTW

3. ASS'Y POWER AMP/EQ P.C BOARD

REF. NO.	PART NO.	DESCRIPTION
AC CORD(E1/E2/E3/Y7/U5/U8)	⚠ 071-669078-00	AC LINE CORD VDE 78" BLACK PLUG & PIN ASS'Y
AC CORD(B1/Y6)	⚠ 071-449078-20	AC CORD BS STAND W/5A 250V FUSE MOULDED PLUG 78" BLACK
AC COORD(S1)	⚠ 071-559078-20	AC LINE CORD SAA PLUG W/TERMINAL(24183BS-2) 78" BLACK
AC FILTER(E1/E2/E3/B1)	⚠ 002-300002-09	LINER FILTER COIL LF-4D-102
D700/706/707/710/712/726/ D728/729/732/733/734/747/ D750/761/762(for AC-320)	031-174148-00	SILCON DIODE IN4148
D700/706/707/710/712/714/ D722/726/728/729/732/733/ D734/747(for AC-220)		
D701/703/704/705/721	030-410062-00H	ZENER DIODE 7.5V
D702/709/715/718/719/720/ D725/730/741-744/D747 for AC-320)	030-314002-10	RECTIFIER DIODE IN4002
D708/713/731	030-410062-00H	ZENER DIODE 6.2V 500mW

D716	030-410270-01	ZENER DIODE 27V 0.5W
D717/724	030-410130-00H	ZENER DIODE 13V
D727	030-410051-00H	ZENER DIODE 5.1V 0.5W
D736-739	⚠ 030-315401-00	DIODE IN5401
D746	030-410039-00H	ZENER DIODE 3.9V 0.5W
FUSE 701(for AC-220)	⚠ 082-220500-13	FUSE 500mA/250V VDE
FUSE 701(for AC-320)	⚠ 082-220630-10	FUSE 630mA/250V VDE
FUSE 702	⚠ 082-221600-03	FUSE 1.6A/250V VDE
FUSE 703(U5/U8/Y6/Y7)	⚠ 082-221000-03	FUSE TIA1250V
HEAD PHONE	061-122101-00	PHONE JACK 3.5 DIA
IC701	033-314052-21	MC14052BCP DUAL 4-CH MULTIPLEXER
IC706	033-009260-14	TC9260P ELECTRONTC VOLUME
IC707(for AC-320)	033-218751-38	POWER AMP IC SI-18751 "SANKEN"
IC707(for AC-220)	033-202616-33Q	TDA2616Q PHILIPS
IC708	033-007338-11	AN7338K 4+1 PRESET EQ
IC709	033-507805-31	L7805CV VOLTAGE REGULATOR
IC702-IC704	033-204558-18	BA4558 DUAL AMP
IC705(for AC-220)	033-204558-18	BA4558 DUAL AMP
IC710(for AC-320)	033-218751-38	POWER AMP IC SI-18751 "SANKEN"
Q704/705(for AC-320)	031-211048-25	TRANSISTOR 2SA1048Y "TOSHIBA"
Q706(for AC-320)	031-241796-00	TRANSISTOR NPN 2SD1796 "SANKEN"
Q707(for AC-320)	031-221257-00	TRANSISTOR PNP 2SB1257 "SANKEN"
Q700/704-709/711/718 Q719/731/732(for AC-220)	031-279014-03V	TRANSISTOR NPN SS9014C SAMSUNG
Q700Q711/718/731/ 950/951(for AC-320)	031-279014-03V	TRANSISTOR NPN SS9014C SAMSUNG
Q703(for AC-320)	031-440114-05V	TRANSISTOR DTC114ES-TP
Q703/708/724/725/726/ Q730(for AC-220)	031-279015-03V	TRANSISTOR DNP SS9015C SAMSUNG
Q708/716/724/725/726/ Q730(for AC-310)	031-279015-03V	TRANSISTOR DNP SS9015C SAMSUNG
Q710/713/715(for AC-320)	031-232458-25V	TRANSISTOR 2SC2458
Q712	031-278550-04V	TRANSISTOR PNP SS8550D SAMSUNG
Q721	031-278550-03V	TRANSISTOR CS8550C
Q722/727	031-221335-05	TRANSISTOR 2SB1335-T
Q728/729	031-278050-03V	TRANSISTOR SS8050C
RE701(for AC-220)	⚠ 006-110212-04	RELAY POWTV-3 "OSA-SS-212DM5"
R847/850/856	⚠ 013-220305-82	FUSING RESISTOR 22 OHM 1W
R908	⚠ 013-129305-62	FLAME PROOF FUSING RESISTOR 0.2 OHM 1W

4. ASS'Y CD/TUNER/TAPE P.C. BOARD

CD

REF. NO.	**PART NO.**	**DESCRIPTION**
D260/265/266/311/312/313	030-134148-00H	SILCON DIODE IN4148
D290-294	030-314002-10	DIODE IN4002
D310	030-410051-00H	ZENER DIODE 5.1V 0.5W
D4410	030-600048-00	INFRA RAD LED GL4800
IC200	033-601782-64Q	CXA1782BQ/BR

IC201	033-209258-61	KA9258D
IC202	033-K02508-64	CXD2508A4
IC204	033-206247-18	MOTOR DRIVER BA6247
IC260	033-204558-18	DUAL AMP BA4558
TR200	031-211317-00V	TRANSISTOR 2SA1317
TR201/202	031-279014-03V	TRANSISTOR NPN SS9014C SAMSUNG
TR260	031-430144-05V	TRANSISTOR DTA144ES
TR261/262/290/313/314	031-440114-60	TRANSISTOR DTC114TS
TR292	031-221425-00V	TRANSISTOR 2SB1245
TR311	031-233330-00V	TRANSISTOR 2SC3330
TR312	031-203536-06V	TRANSISTOR 536FS
TR4410	031-594800-00	PHOTO TRANS DIODE PT 4800
VR201	012-103330-06	SEMI-FIXED RES 13-10K OHM
X240	007-201693-06	RESONATOR OSC CSA 16.93MHz

TUNER

TU-A (E1/E2/B1/E3)	103-146601-04	TUNER ASS'Y FM/MW/LW TFCB3E720A
TU-B (Y6/U5/U8/S1)	103-146401-04	TUNER ASS'Y FM/AM TFCB1U717A
TU-C (Y7)	103-146101-04	TUNER ASS'Y FM/MW/SW TECB1S713A
ANT TERMINAL	061-480312-00	ANTENNA TERMINAL "HSP-312V-02"
AUX TERMINAL	071-782421-00	PUSH TERMINAL 2PIN HSP-242V1-05 "KUNMING"
D101	030-134148-00H	SILCON DIODE IN4148
D102	030-410062-00H	ZENER DIODE 6.2V
D502/503	030-130024-00H	SILCON DIODE CDG24
Q101/106	031-278050-03V	TRANSISTOR 538050C
Q102/103/105	031-279014-03V	TRANSISTOR NPN SS9014 SAMSUNG
Q104	031-279015-03V	TRANSISTOR PNP SS9015C SAMSUNG

TAPE

D501/513/514/516/517/518	030-134148-00H	SILCON DIODE IN4148
D519	030-410100-00H	ZENER DIODE 10V 5%
IC501	033-203246-16	LA3246
IC502	033-207324-14	TA73249
IC503	033-203241-16	LA3241
IC504	033-204558-18	BA4558
IC505	033-201330-13	UPC1330
L502	005-271101-00	FIXED INDUCTOR COIL 270MH
Q503/504/508/511/512/ Q516/517/521/522/523/ Q525/526/527/530	031-279014-03V	TRANSISTOR SS9014C
Q510/513/529	031-279015-03V	TRANSISTOR SS90115C
Q518	031-370435-00	TRANSISTOR BD435
Q524	031-278550-04V	TRANSISTOR SS8550D
T501/502/504/505	007-100100-009	BIAS TRAP COIL 100Z-121
T503	002-815100-05	REC OSC IET 510-067
VR501/502	112-103541-06	SEMI-FIXED RES 100K
VR508	012-103330-06	SEMI-FIXED RESISTOR 10KB VERTICAL
VR509	012-502310-06	SEMI-FIXED RESISTOR 5KB VERTICAL

5. PC BOARD BLOCK

REF.NO	PART NO.	DESCRIPTION
1-a(B1/E1/E2/E3 for AC-320)	771-AC32001-04	TC-DK P.C. BOARD
1-b(S1/U5/U8/Y6 for AC-320)	771-AC32001-10	TC-DK P.C. BOARD
1-c(Y7 for AC-320)	771-AC32001-13	TC-DK P.C. BOARD
1-d(ALL VERSION)	771-AC32001-05	CD CONNECTOR P.C. BOARD
2-a(B1/E1/E2/E3 for AC-220)	771-AC22001-04	TC-DK P.C. BOARD
2-b(S1/U5/U8/Y6 for AC-220)	771-AC22001-10	TC-DK P.C. BOARD
2-c(Y7 for AC-220)	771-AC22001-12	TC-DK P.C. BOARD

3-a(B1/E1/E2/E3)	771-AC32001-06	KEY &FLD P.C. BOARD
3-b(U8	771-AC32001-12	KEY &FLD P.C. BOARD
3-c(Y7)	771-AC32001-14	KEY &FLD P.C. BOARD
3-d(S1/U5/Y6)	771-AC32001-15	KEY &FLD P.C. BOARD
4-a(B1/E1/E2/E3 for AC-320)	771-AC32001-01	AMP MAIN P.C. BOARD
4-b(S1/U5/U8/Y6 for AC-320)	771-AC32001-08	AMP MAIN P.C. BOARD
5-a(B1/E1/E2/E3 for AC-220)	771-AC32001-01	AMP MAIN P.C. BOARD
5-b(S1/U5/U8/Y6 for AC-220)	771-AC32001-08	AMP MAIN P.C. BOARD
6-a(B1/E1/E2/E3 for AC-320)	771-AC32001-02	POWER TRANS. PRIMARY P.C. BOARD
6-b(S1/U5/U8/Y6 for AC-320)	771-AC32001-09	POWER TRANS. PRIMARY P.C. BOARD
6-c(Y7 for AC-320)	771-AC32001-11	POWER TRANS. PRIMARY P.C. BOARD
7-a(B1/E1/E2/E3 for AC-220)	771-AC22001-02	POWER TRANS. PRIMARY P.C. BOARD
7-b(S1/U5/U8/Y6 for AC-220)	771-AC22001-09	POWER TRANS. PRIMARY P.C. BOARD
7-c(Y7 for AC-220)	771-AC22001-11	POWER TRANS. PRIMARY P.C. BOARD
8(ALL VERSION)	771-AC32001-03	POWER TRANS. SSECONDARY P.C. BOARD

6. ACCESSARY

REF.NO	PART NO.	DESCRIPTION
1	790-010103-02	REMOCON(RC-S320)

7. OTHERS

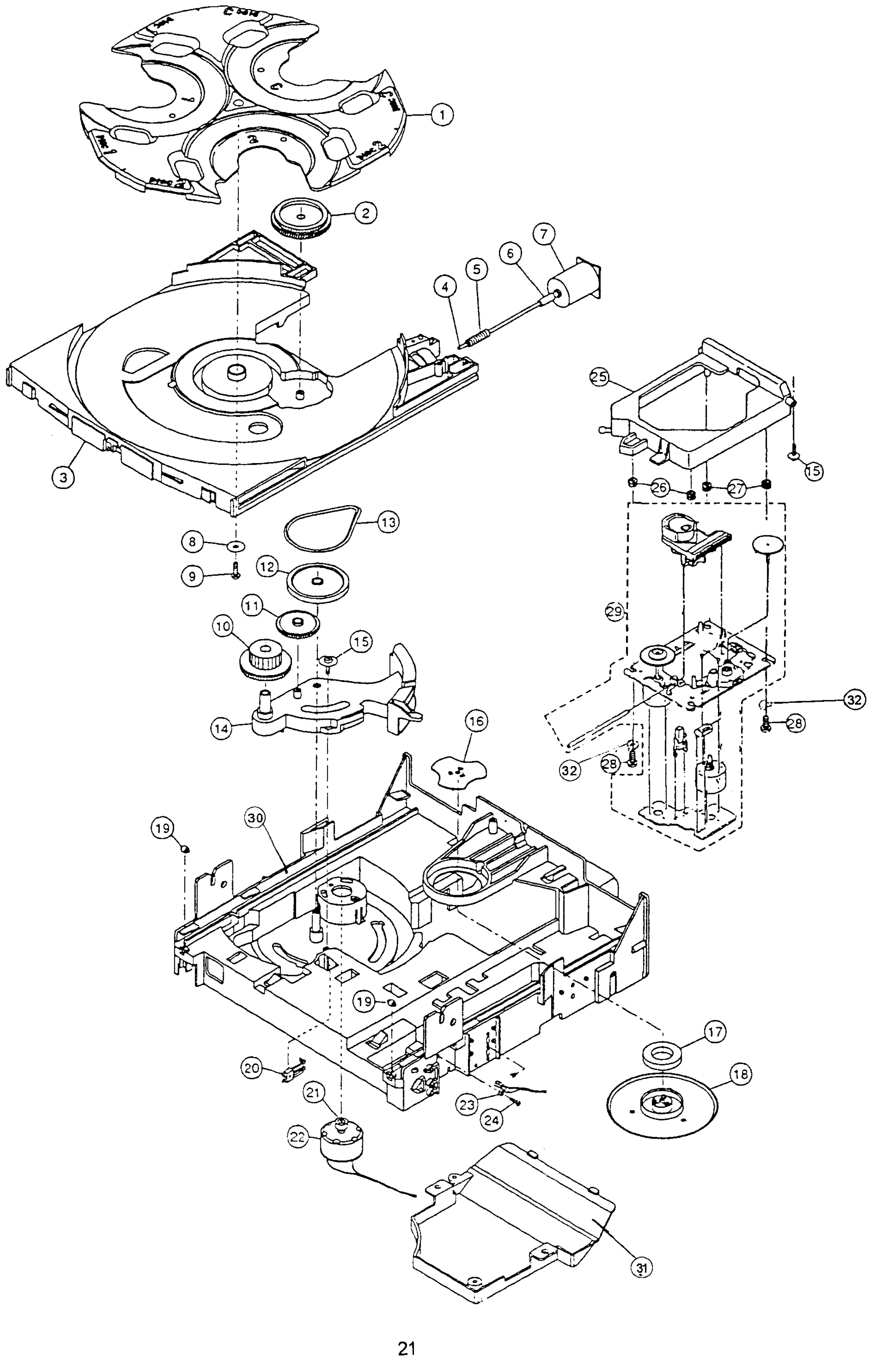
TRANS. FORMER

(for AC-220)	⚠ 001-66AC22022	TRANS. FORMER 230V/50Hz
(for AC-320)	⚠ 001-66AC32022	TRANS. FORMER 230V/50Hz
(for AC-220)	⚠ 001-66AA01-06	TRANS. FORMER MULTIPLE VOLTAGE
(for AC-320)	⚠ 001-66AA02-06	TRANS. FORMER MULTIPLE VOLTAGE

8. CD MECHANISM

REF. NO.	PART NO.	DESCRIPTION
1	229-385602-01S	HOLDERDISC
2	288-385601-01Z	GEAR WORMWHEEL TABLE
3	220-385602-01S	TRAY LOADING
4	438-385601-01	SHAFT
5	288-385604-01Z	WORM
6	239-385601-01Z	JOINT
7	743-037012-54	MOTOR PF-370CA-15370 12V
8	634-150030-08	PW30X150X080 THK
9	619-300208-00	TAPING SCREW 3X1.25X8mm
10	288-385605-01Z	GEAR LOADING (A)
11	288-385606-01Z	GEAR LOADING(B)
12	288-385602-01Z	PULLEY GEAR
13	334-385604-01	BELT LOADING
14	288-385603-01S	HOLDER GEAR
15	615-300308-00	BW/T 3X8mm
16	428-385603-01	PLATE CLAMPER
17	489-383801-01	MAGNET DISC CLAMP
18	229-385606-01S	CLAMPER
19	259-385602-01Z	ROLLER
20	047-102127-00	LEAF SWITCH LSA-2127E
21	243-385601-01Z	PULLEY
22	743-050009-54	MOTOR RF-500TB-14415 D/V
23	047-101119-01	LEAF SWITCH ISA-1119H
24	610-260208-10	R/T 2.6X8mm
25	220-385601-01S	HOLDER TRAVERSE
26	334-385606-01	INSULATOR
27	334-385606-01	INSULATOR
28	610-200216-00	SELF-SCREW TAPING B/T 2.0X16
29	747-021301-02	MECHA TRAVERSE KSM213CCM
30	220-385603-01R	CHASSIS MAIN
31	219-385601-01Z	CD MECH COVER
32	634-100027-05	METAL WASHER 10X2.7X0.5

CD MECHANISM BLOCK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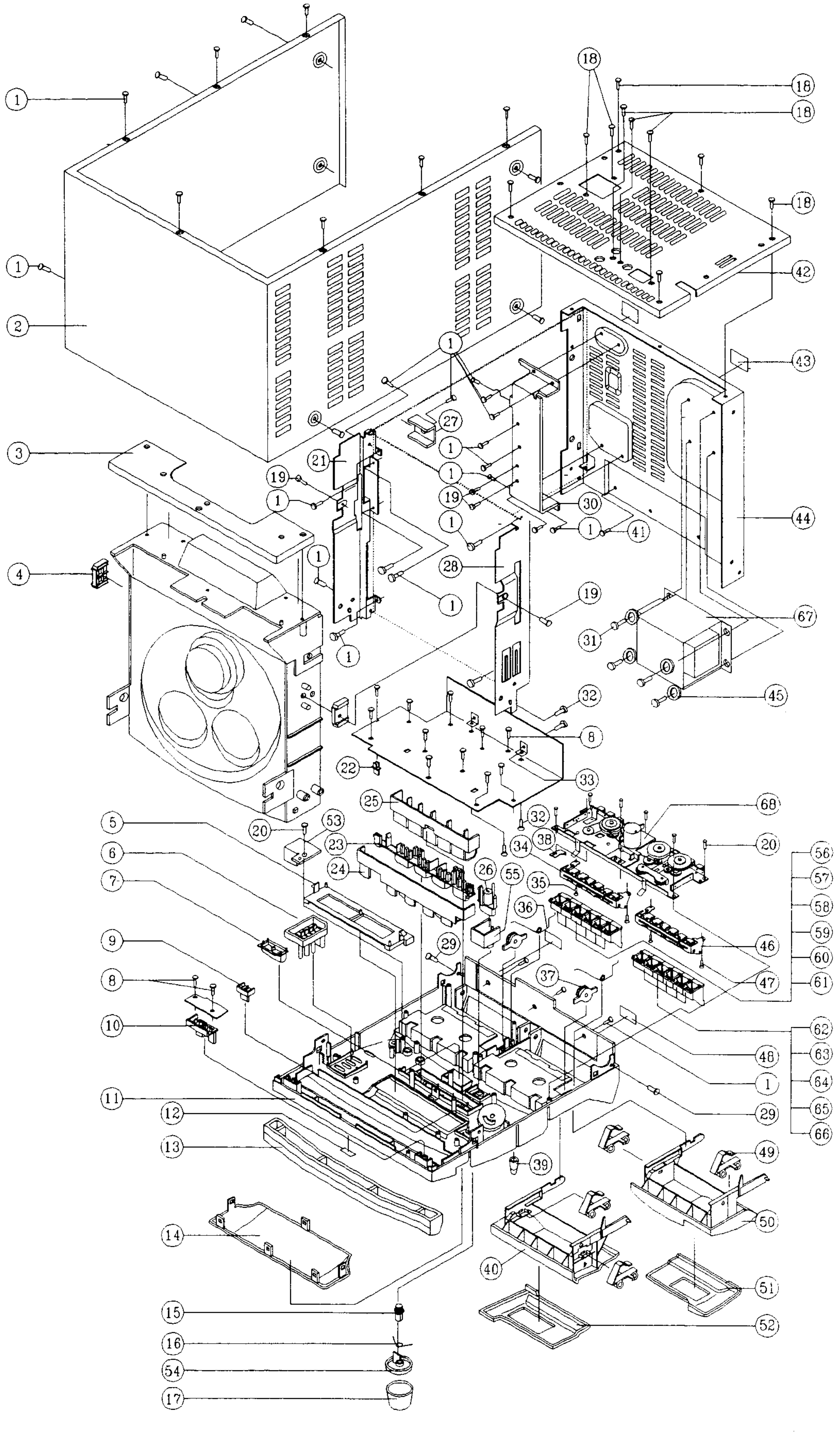
9. AC-220 (E1, E2, E3, B1, S1)

REF. NO.	PARTS NO.	DESCRIPTION
1	619-300208-10	TAPPING SCREW C TYPE BID H 3X8MM NICKEL PLATE
2	402-385002-02	MAIN COVER
3	495-385017-01	REAR CAB SUB
4	284-385001-01R	MECH SPACER BLACK
5	248-AA0201-01S	FLD HOLDER BLACK
6	291-AA0201-01S	PROG BUTTON
7	292-AA0202-01S	POWER BUTTON
8	610-300108-10	SELF-TAPPING SCREW R/T 3X8MM WHITE
9	291-AA0202-01S	BALANCE BUTTON
10	291-AA0301-01S	DISC BUTTON
11	200-AA0201-01R	FRONT CAB
12	286-385001-02S	NAME PLATE "AKAI"
13	219-AA0301-01R	CD DOOR (B)
14	263-AA0201-01K	FRONT CAB. LENS
15	430-385001-01	VOLUME SHAFT ASS'Y
16	477-380501-01	VOLUME SPRING
17	273-AA0201-01S	VOLUME KNOB
18	606A301208-00	SELF-TAPPING SCREW R/T 3X10 ZINE PLATE
19	619-300212-00	TAPING SCREW B/H 3X12mm ZINE PLATE
20	610-300110-10	SELF TAPING SCREW R/T 3X10mm WHITE
21	428-385001-01	CD BKT "L"
22	275-AA0201-01S	H.S.DUBBING BUTTON
23	229-AA0201-01S	LED BKT WHITE A
24	277-AA0201-01S	FUNCTION BUTTON MILKY WHITE
25	291-AA0203-01S	CD FUNCTION BUTTON "B"
26	229-AA0202-01S	LED BKT B
27	481-380502-01	HEAT SINK
28	428-385002-01	CD BKT "R"
29	619-300306-00	TAPING SCREW P TYPE FLAT H 3X6MM ZINCE PLATE BLK
30	481-385011-01	HEAT SINK
31	602-407008-60A	TAPPING SCREW C TYPE BID H 3X1.25PX8MM ZINCE PLATE
32	600-305006-10	MACHINE SCREW P/H 3X6 MM WHITE
33	428-385601-01	PCB MTG BKT
34	420-331601-02F	CASS KEY BKT ASS'Y A/S
35	608-204007-10G	MACHINE SCREW S.P/H 2X7MM
36	471-AA0201-01	CASS DOOR SPRING
37	703-385002-01	DAMPER GEAR ASS'Y
38	428-385605-01	DECK MTG BKT
39	292-AA0201-01S	MIC MIXING KNOB
40	211-AA0201-01S	CASS DOOR "L"
41	608-400706-60	TAPING SCREW P TYPE BID H 4X6MM ZINCE PLATE BLACK
42-a(E1)	495-385001-08	REAR CAB
42-b(E2/E3/B1)	495-385001-16	REAR CAB
42-c(S1)	495-385001-18	REAR CAB

43	330-385002-01	REAR CUSHION FOOT
44	493-385011-01	METAL BOTTOM CAB
45	633-071040-10	SPRING WASHER
46	420-380601-01	CASS KEY BKT ASS'Y A/R
47	608-204009-10G	MACHINE SCREW 2X9MM
48	330-385001-01	FRONT CUSHION FOOT
49	259-AA0201-01S	CASS TAPE SPRING BLACK
50	211-AA0202-02S	CASS DOOR "R"
51	261-AA0202-01K	CASS DOOR LENS "R"
52	261-AA0201-01K	CASS DOOR LENS "L"
53	428-AA0201-01	PHONE JACK BKT
54	273-AA0202-01S	VOLUME RING
55	291-AA0204-01S	SUPPER BASE KNOB
56	272-AA0201-01S	CASS KEY A
57	272-AA0202-01S	CASS KEY B
58	272-AA0203-01S	CASS KEY C
59	272-AA0204-01S	CASS KEY D
60	272-AA0205-01S	CASS KEY E
61	272-AA0206-01S	CASS KEY F
62	272-AA0101-01S	CASS KEY M
63	272-AA0209-01S	CASS KEY I
64	272-AA020A-01S	CASS KEY J
65	272-AA020B-01S	CASS KEY K
66	272-AA020C-01S	CASS KEY L
67	⚠ 001-66AC22022	POWER TRANSFORMER
68	741-313858-19	CASSETTE MECHA BLOCK

FINAL ASSEMBLY BLOCK

MODEL: AC−220 E1, E2, E3, B1, S1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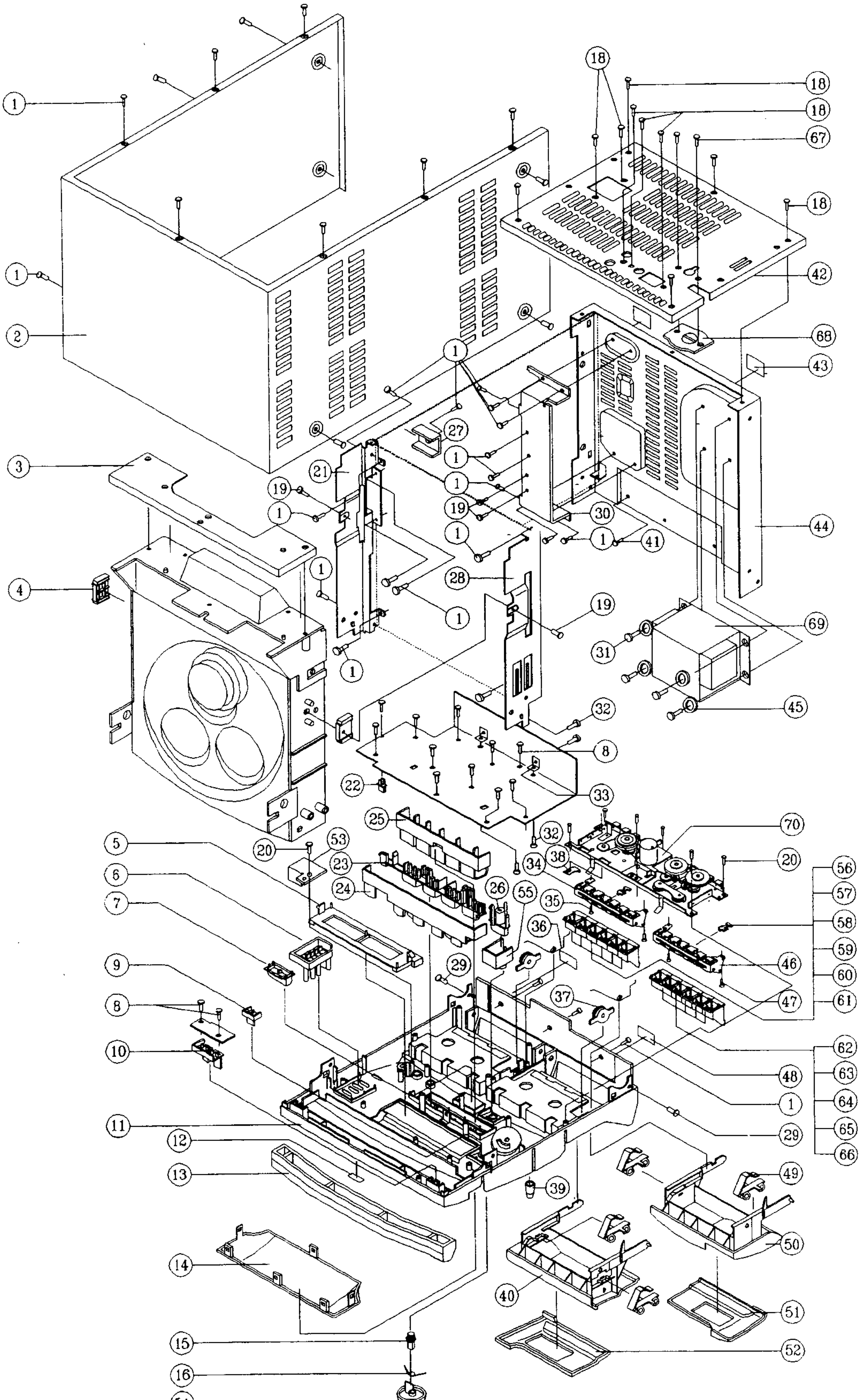
10. AC-220 (Y6, Y7, U5, U8)

REF. NO.	PARTS NO.	DESCRIPTION
1	619-300208-10	TAPPING SCREW C TYPE BID H 3X8MM NICKEL PLATE
2	402-385002-02	MAIN COVER
3	495-385017-01	REAR CAB SUB
4	284-385001-01R	MECH SPACER BLACK
5	248-AA0201-01S	FLD HOLDER BLACK
6	291-AA0201-01S	PROG BUTTON
7	292-AA0202-01S	POWER BUTTON
8	610-300108-10	SELF-TAPPING SCREW R/T 3X8MM WHITE
9	291-AA0202-01S	BALANCE BUTTON
10	291-AA0301-01S	DISC BUTTON
11	200-AA0201-01R	FRONT CAB
12	286-385001-02S	NAME PLATE "AKAI"
13	219-AA0301-01R	CD DOOR (B)
14	263-AA0201-01K	FRONT CAB. LENS
15	430-385001-01	VOLUME SHAFT ASS'Y
16	477-380501-01	VOLUME SPRING
17	273-AA0201-01S	VOLUME KNOB
18	606A301208-00	SELF-TAPPING SCREW R/T 3X10 ZINE PLATE
19	619-300212-00	TAPING SCREW B/H 3X12mm ZINE PLATE
20	610-300110-10	SELF TAPING SCREW R/T 3X10mm WHITE
21	428-385001-01	CD BKT "L"
22	275-AA0201-01S	H.S.DUBBING BUTTON
23	229-AA0201-01S	LED BKT WHITE A
24	277-AA0201-01S	FUNCTION BUTTON MILKY WHITE
25	291-AA0203-01S	CD FUNCTION BUTTON "B"
26	229-AA0202-01S	LED BKT B
27	481-380502-01	HEAT SINK
28	428-385002-01	CD BKT "R"
29	619-300306-00	TAPING SCREW P TYPE FLAT H 3X6MM ZINCE PLATE BLK
30	481-385011-01	HEAT SINK
31	602-407008-60A	TAPPING SCREW C TYPE BID H 3X1.25PX8MM ZINCE PLATE
32	600-305006-10	MACHINE SCREW P/H 3X6 MM WHITE
33	428-385601-01	PCB MTG BKT
34	420-331601-02F	CASS KEY BKT ASS'Y A/S
35	608-204007-10	GMACHINE SCREW S.P/H 2X7MM
36	471-AA0201-01	CASS DOOR SPRING
37	703-385002-01	DAMPER GEAR ASS'Y
38	428-385605-01	DECK MTG BKT
39	292-AA0201-01S	MIC MIXING KNOB
40	211-AA0201-01S	CASS DOOR "L"
41	608-400706-60	TAPING SCREW P TYPE BID H 4X6MM ZINCE PLATE BLACK
42-a(U8/Y7)	495-385002-14	REAR CAB
42-b(U5/Y6)	495-385002-13	REAR CAB

43	330-385002-01	REAR CUSHION FOOT
44	493-385011-01	METAL BOTTOM CAB
45	633-071040-10	SPRING WASHER
46	420-380601-01	CASS KEY BKT ASS'Y A/R
47	608-204009-10G	MACHINE SCREW 2X9MM
48	330-385001-01	FRONT CUSHION FOOT
49	259-AA0201-01S	CASS TAPE SPRING BLACK
50	211-AA0202-02S	CASS DOOR "R"
51	261-AA0202-01K	CASS DOOR LENS "R"
52	261-AA0201-01K	CASS DOOR LENS "L"
53	428-AA0201-01	PHONE JACK BKT
54	273-AA0202-01S	VOLUME RING
55	291-AA0204-01S	SUPPER BASE KNOB
56	272-AA0201-01S	CASS KEY A
57	272-AA0202-01S	CASS KEY B
58	272-AA0203-01S	CASS KEY C
59	272-AA0204-01S	CASS KEY D
60	272-AA0205-01S	CASS KEY E
61	272-AA0206-01S	CASS KEY F
62	272-AA0101-01S	CASS KEY M
63	272-AA0209-01S	CASS KEY I
64	272-AA020A-01S	CASS KEY J
65	272-AA020B-01S	CASS KEY K
66	272-AA020C-01S	CASS KEY L
67	606-305008-00	TAPPING SCREW B/H 3X8mm ZINE PLATE
68	⚠ 040-024910-00	VOLTAGE SELECTOR
69	⚠ 001-66AA01-06	POWER TRANSFORMER
70	741-313858-19	CASSETTE MECHA BLOCK

FINAL ASSEMBLY BLOCK

MODEL: AC-220 Y6, Y7, U5, U8



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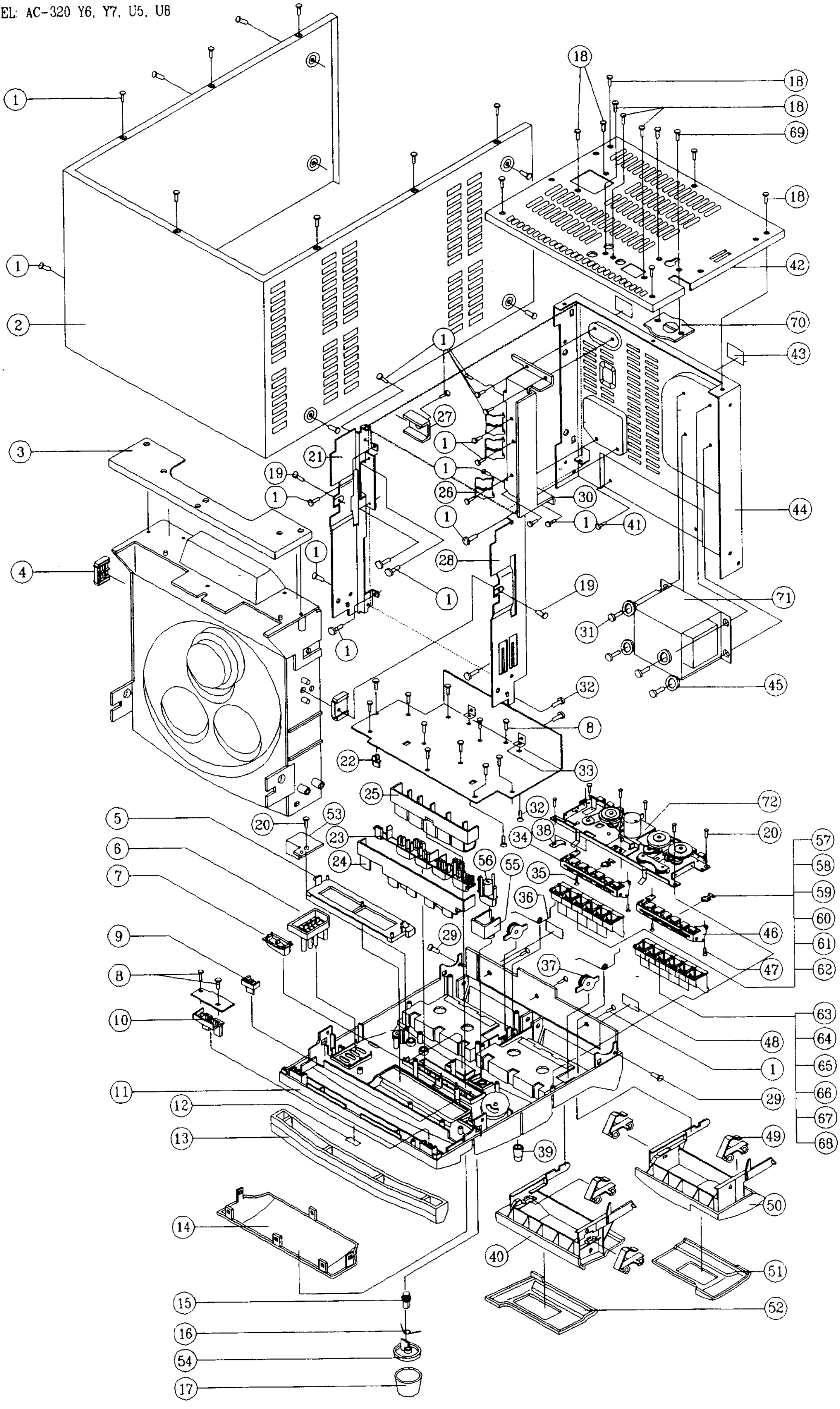
11. AC-320 (E1, E2, E3, B1, S1)

REF. NO.	PARTS NO.	DESCRIPTION
1	619-300208-10	TAPPING SCREW C TYPE BID H 3X8MM NICKEL PLATE
2	402-385002-02	MAIN COVER
3	495-385017-01	REAR CAB SUB
4	284-385001-01R	MECH SPACER BLACK
5	248-AA0201-01S	FLD HOLDER BLACK
6	291-AA0201-01S	PROG BUTTON
7	292-AA0202-01S	POWER BUTTON
8	610-300108-10	SELF-TAPPING SCREW R/T 3X8MM WHITE
9	291-AA0202-01S	BALANCE BUTTON
10	291-AA0301-01S	DISC BUTTON
11	200-AA0201-02R	FRONT CAB
12	286-385001-02S	NAME PLATE "AKAI"
13	219-AA0301-01R	CD DOOR (B)
14	263-AA0201-01K	FRONT CAB. LENS
15	430-385001-01	VOLUME SHAFT ASS'Y
16	477-380501-01	VOLUME SPRING
17	273-AA0201-01S	VOLUME KNOB
18	606A301208-00	SELF-TAPPING SCREW R/T 3X10 ZINE PLATE
19	619-300212-00	TAPING SCREW B/H 3X12mm ZINE PLATE
20	610-300110-10	SELF TAPING SCREW R/T 3X10mm WHITE
21	428-385001-01	CD BKT "L"
22	275-AA0201-01S	H.S.DUBBING BUTTON
23	229-AA0201-01S	LED BKT WHITE A
24	277-AA0201-01S	FUNCTION BUTTON MILKY WHITE
25	291-AA0203-01S	CD FUNCTION BUTTON "B"
26	428-385003-01	HOLDER BKT
27	481-380502-01	HEAT SINK
28	428-385002-01	CD BKT "R"
29	619-300306-00	TAPING SCREW P TYPE FLAT H 3X6MM ZINCE PLATE BLK
30	481-AA0201-01	HEAT SINK
31	602-407008-60A	TAPPING SCREW C TYPE BID H 3X1.25PX8MM ZINCE PLATE
32	600-305006-10	MACHINE SCREW P/H 3X6 MM WHITE
33	428-385601-01	PCB MTG BKT
34	420-331601-02F	CASS KEY BKT ASS'Y A/S
35	608-204007-10G	MACHINE SCREW S.P/H 2X7MM
36	471-AA0201-01	CASS DOOR SPRING
37	703-385002-01	DAMPER GEAR ASS'Y
38	428-385605-01	DECK MTG BKT
39	292-AA0201-01S	MIC MIXING KNOB
40	211-AA0201-01S	CASS DOOR "L"
41	608-400706-60	TAPING SCREW P TYPE BID H 4X6MM ZINCE PLATE BLACK
42-a(E1)	495-385001-08	REAR CAB
42-b(E2/E3/B1)	495-385001-15	REAR CAB

42-c(S1)	495-385001-17	REAR CAB
43	330-385002-01	REAR CUSHION FOOT
44	493-385011-01	METAL BOTTOM CAB
45	633-071040-10	SPRING WASHER
46	420-380601-01	CASS KEY BKT ASS'Y A/R
47	608-204009-10G	MACHINE SCREW 2X9MM
48	330-385001-01	FRONT CUSHION FOOT
49	259-AA0201-01S	CASS TAPE SPRING BLACK
50	211-AA0202-02S	CASS DOOR "R"
51	261-AA0202-02K	CASS DOOR LENS "R"
52	261-AA0201-02K	CASS DOOR LENS "L"
53	428-AA0201-01	PHONE JACK BKT
54	273-AA0202-01S	VOLUME RING
55	291-AA0204-01S	SUPPER BASE KNOB
56	229-AA0202-01S	LED BKT B
57	272-AA0201-01S	CASS KEY A
58	272-AA0202-01S	CASS KEY B
59	272-AA0203-01S	CASS KEY C
60	272-AA0204-01S	CASS KEY D
61	272-AA0205-01S	CASS KEY E
62	272-AA0206-01S	CASS KEY F
63	272-AA0207-01S	CASS KEY G
64	272-AA0208-01S	CASS KEY H
65	272-AA0209-01S	CASS KEY I
66	272-AA020A-01S	CASS KEY J
67	272-AA020B-01S	CASS KEY K
68	272-AA020C-01S	CASS KEY L
69	⚠ 001-66AC32022	POWER TRANSFORMER
70	741-310521-50	CASSETTE MECHA BLOCK

FINAL ASSEMBLY BLOCK
MODEL: AC-320 Y6, Y7, U5, U6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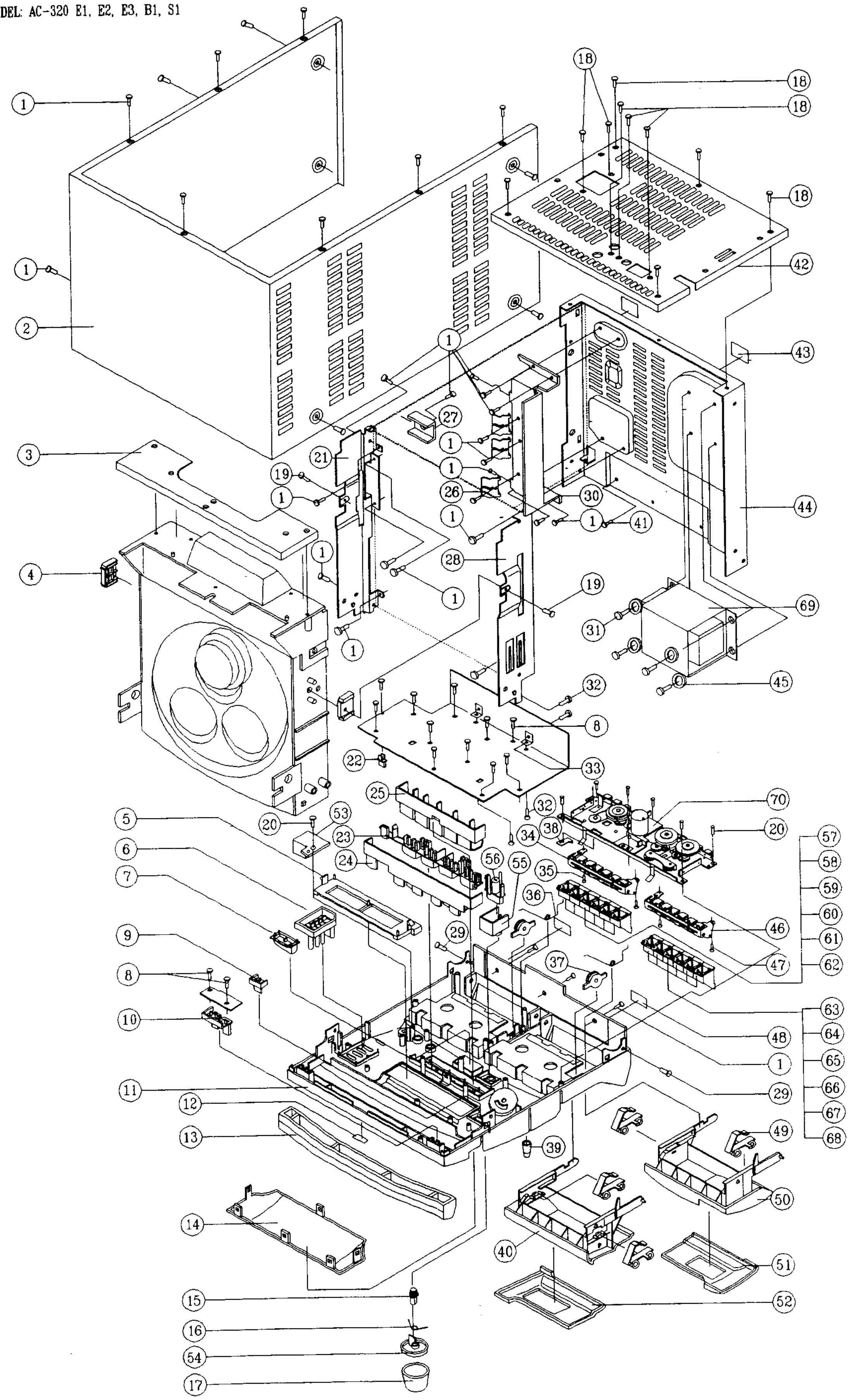
12. AC-320(Y6, Y7, U5, U8)

REF. NO.	PARTS NO.	DESCRIPTION
1	619-300208-10	TAPPING SCREW C TYPE BID H 3X8MM NICKEL PLATE
2	402-385002-02	MAIN COVER
3	495-385017-01	REAR CAB SUB
4	284-385001-01R	MECH SPACER BLACK
5	248-AA0201-01S	FLD HOLDER BLACK
6	291-AA0201-01S	PROG BUTTON
7	292-AA0202-01S	POWER BUTTON
8	610-300108-10	SELF-TAPPING SCREW R/T 3X8MM WHITE
9	291-AA0202-01S	BALANCE BUTTON
10	291-AA0301-01S	DISC BUTTON
11	200-AA0201-02R	FRONT CAB
12	286-385001-02S	NAME PLATE "AKAI"
13	219-AA0301-01R	CD DOOR (B)
14	263-AA0201-01K	FRONT CAB. LENS
15	430-385001-01	VOLUME SHAFT ASS'Y
16	477-380501-01	VOLUME SPRING
17	273-AA0201-01S	VOLUME KNOB
18	606A301208-00	SELF-TAPPING SCREW R/T 3X10 ZINE PLATE
19	619-300212-00	TAPING SCREW B/H 3X12mm ZINE PLATE
20	610-300110-10	SELF TAPING SCREW R/T 3X10mm WHITE
21	428-385001-01	CD BKT "L"
22	275-AA0201-01S	H.S.DUBBING BUTTON
23	229-AA0201-01S	LED BKT WHITE A
24	277-AA0201-01S	FUNCTION BUTTON MILKY WHITE
25	291-AA0203-01S	CD FUNCTION BUTTON "B"
26	428-385003-01	HOLDER BKT
27	481-380502-01	HEAT SINK
28	428-385002-01	CD BKT "R"
29	619-300306-00	TAPING SCREW P TYPE FLAT H 3X6MM ZINCE PLATE BLK
30	481-AA0201-01	HEAT SINK
31	602-407008-60A	TAPPING SCREW C TYPE BID H 3X1.25PX8MM ZINCE PLATE
32	600-305006-10	MACHINE SCREW P/H 3X6 MM WHITE
33	428-385601-01	PCB MTG BKT
34	420-331601-02F	CASS KEY BKT ASS'Y A/S
35	608-204007-10G	MACHINE SCREW S.P/H 2X7MM
36	471-AA0201-01	CASS DOOR SPRING
37	703-385002-01	DAMPER GEAR ASS'Y
38	428-385605-01	DECK MTG BKT
39	292-AA0201-01S	MIC MIXING KNOB
40	211-AA0201-01S	CASS DOOR "L"
41	608-400706-60	TAPING SCREW P TYPE BID H 4X6MM ZINCE PLATE BLACK
42-a(U8/Y7)	495-385002-12	REAR CAB
42-b(U5/Y6)	495-385002-11	REAR CAB

43	330-385002-01	REAR CUSHION FOOT
44	493-385011-01	METAL BOTTOM CAB
45	633-071040-10	SPRING WASHER
46	420-380601-01	CASS KEY BKT ASS'Y A/R
47	608-204009-10G	MACHINE SCREW 2X9MM
48	330-385001-01	FRONT CUSHION FOOT
49	259-AA0201-01S	CASS TAPE SPRING BLACK
50	211-AA0202-02S	CASS DOOR "R"
51	261-AA0202-02K	CASS DOOR LENS "R"
52	261-AA0201-02K	CASS DOOR LENS "L"
53	428-AA0201-01	PHONE JACK BKT
54	273-AA0202-01S	VOLUME RING
55	291-AA0204-01S	SUPPER BASE KNOB
56	229-AA0202-01S	LED BKT B
57	272-AA0201-01S	CASS KEY A
58	272-AA0202-01S	CASS KEY B
59	272-AA0203-01S	CASS KEY C
60	272-AA0204-01S	CASS KEY D
61	272-AA0205-01S	CASS KEY E
62	272-AA0206-01S	CASS KEY F
63	272-AA0207-01S	CASS KEY G
64	272-AA0208-01S	CASS KEY H
65	272-AA0209-01S	CASS KEY I
66	272-AA020A-01S	CASS KEY J
67	272-AA020B-01S	CASS KEY K
68	272-AA020C-01S	CASS KEY L
69	606-305008-00	TAPPING SCREW B/H 3X8mm ZINE PLATE
70	⚠ 040-024910-00	VOLTAGE SELECTOR
71	⚠ 001-66AA02-06	POWER TRANSFORMER
72	741-310521-50	CASSETTE MECHA BLOCK

FINAL ASSEMBLY BLOCK
MODEL: AC-320 E1, E2, E3, B1, S1



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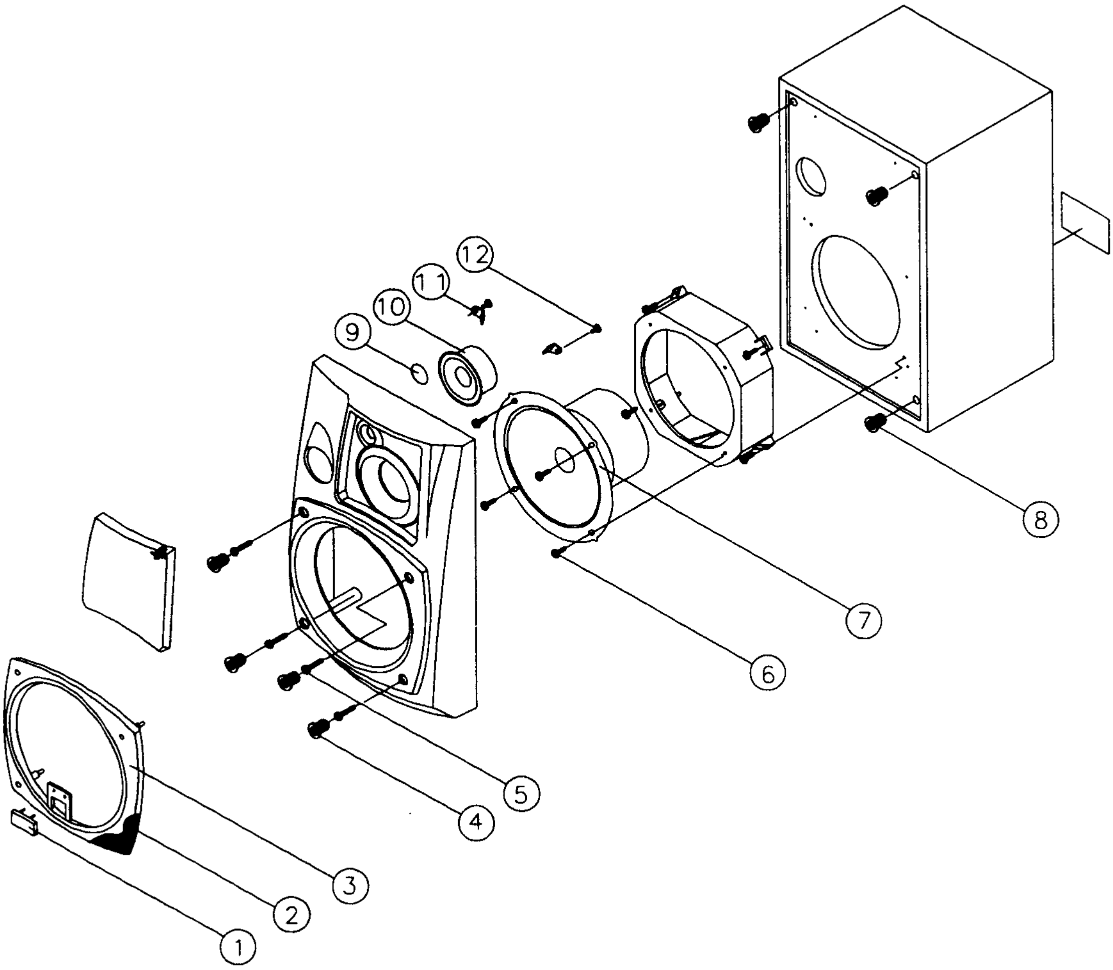
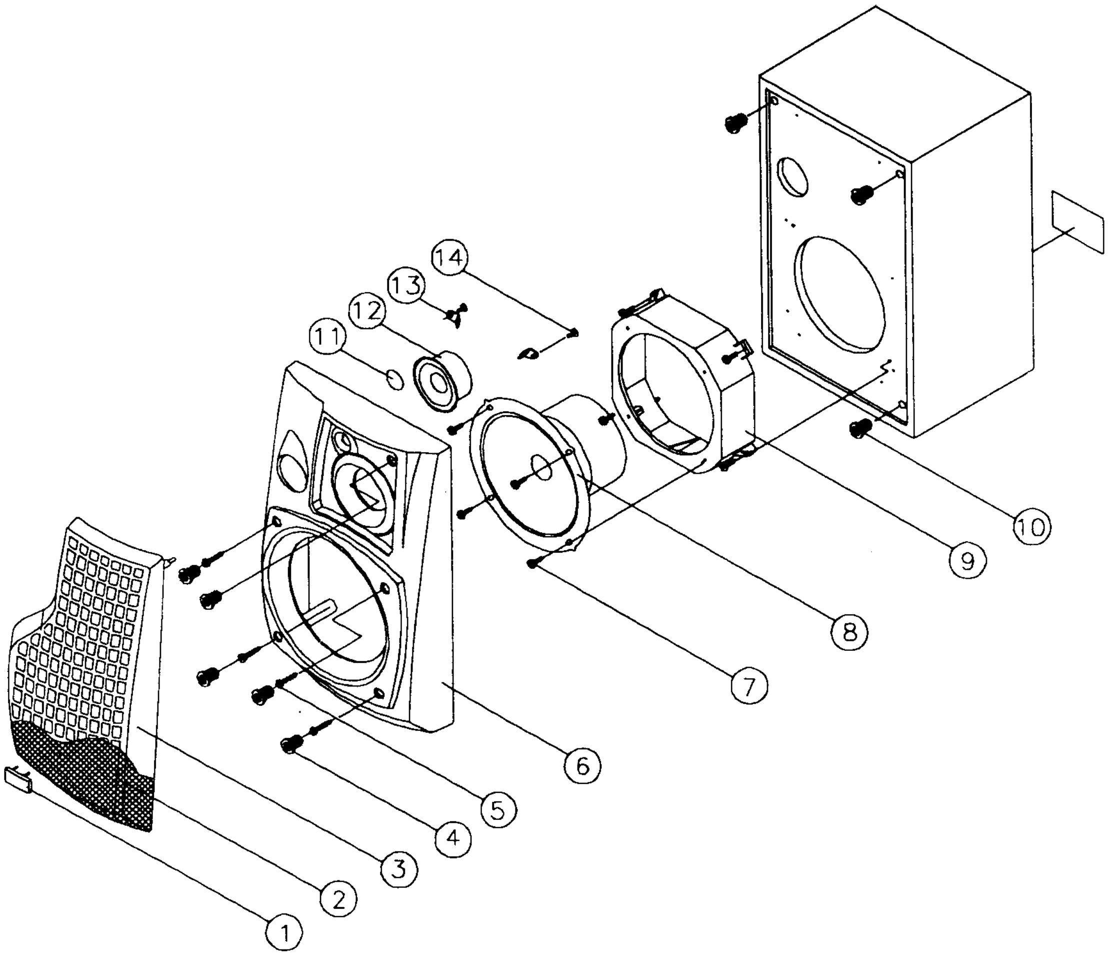
13. SPEAKER SYSTEM (SR-425)



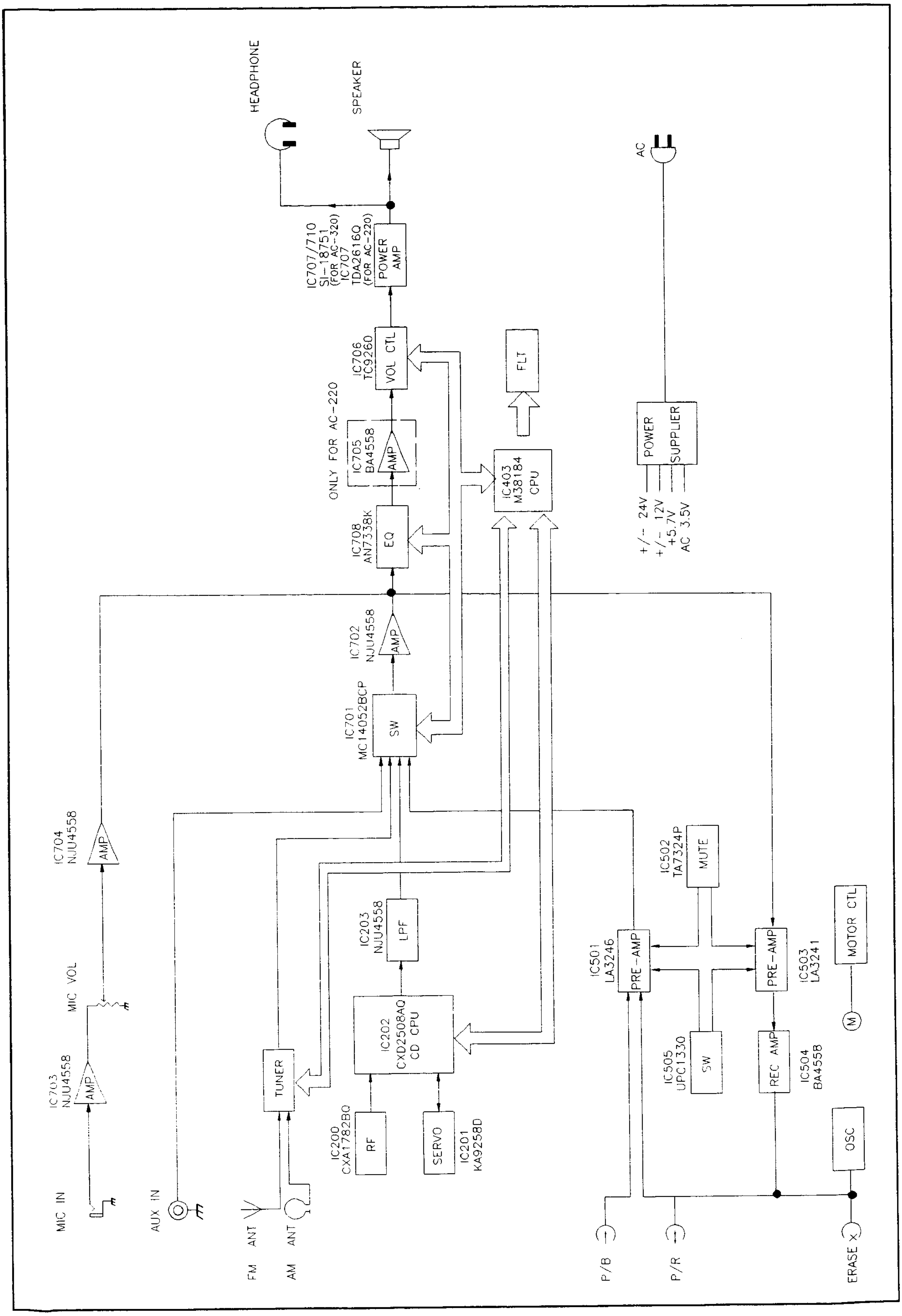
REF. NO	PART NO	DESCRIPTION
1	286-385002-01S	NAME PLATE FOR AKAI
2	583-051501-01	SPEAKER CLOTH
3	239-051501-01R	FRAME NET (R)
4	259-050201-01Z	CUSHION FOR SPEAKER BOX BLK S.B.R
5	610-350220-10	SELF-TAPPING SCREW R/T 3.5X20MM
6	614-400216-30	SELF-TAPPING SCREW R/T 4.0X16MM BLACK
7	066-953254-WT	WOOFER SPEAKER
8	259-381301-01	CUSHION
9	070-100027-02Z	27MM PIEZO
10	066-283220-WT	MIDRANGE SPEAKER
11	462-333202-01	SPEAKER CLIP
12	612-300210-10	SELF-TAPPING SCREW 3X10MM

14. SPEAKER SYSTEM (SR-225)



REF. NO	PART NO	DESCRIPTION
1	286-385002-02S	NAME PLATE FOR AKAI
2	583-051401-01	SPEAKER CLOTH
3	239-051402-01R	FRAME NET (R)
4	259-050201-01Z	CUSHION FOR SPEAKER BOX BLK S.B.R
5	610-350220-10	SELF-TAPPING SCREW R/T 3.5X20MM
6	205-051402-01R	CABINET FRONT (R)
7	614-400216-30	SELF-TAPPING SCREW R/T 4.0X16MM BLACK
8	066-252254-WT	WOOFER SPEAKER
9	229-050501-01R	SPEAKER BRACKET
10	259-381301-01	CUSHION
11	070-100027-02Z	27MM PIEZO
12	066-272221-WT	MIDRANGE SPEAKER
13	462-333202-01	SPEAKER CLIP
14	612-300210-10	SELF-TAPPING SCREW 3X10MM

VI. BLOCK DIAGRAM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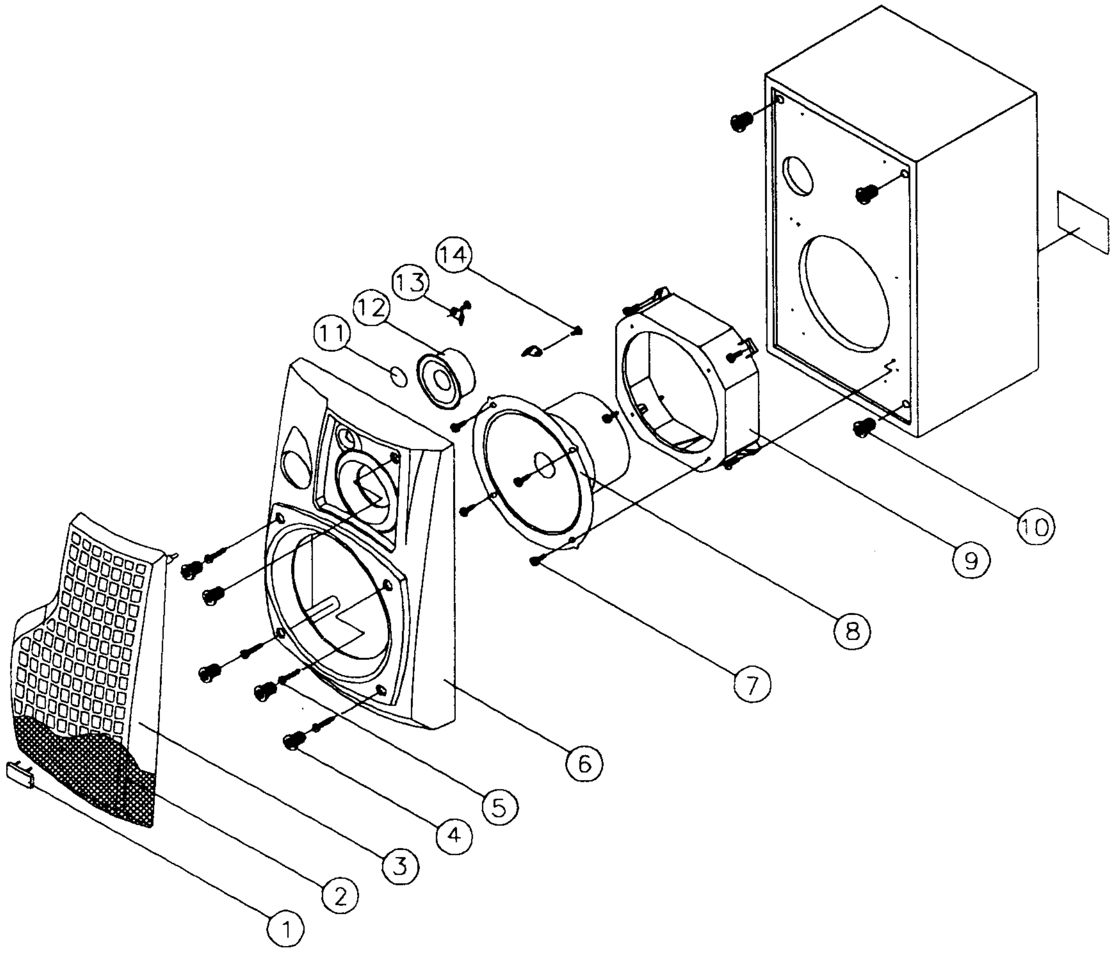
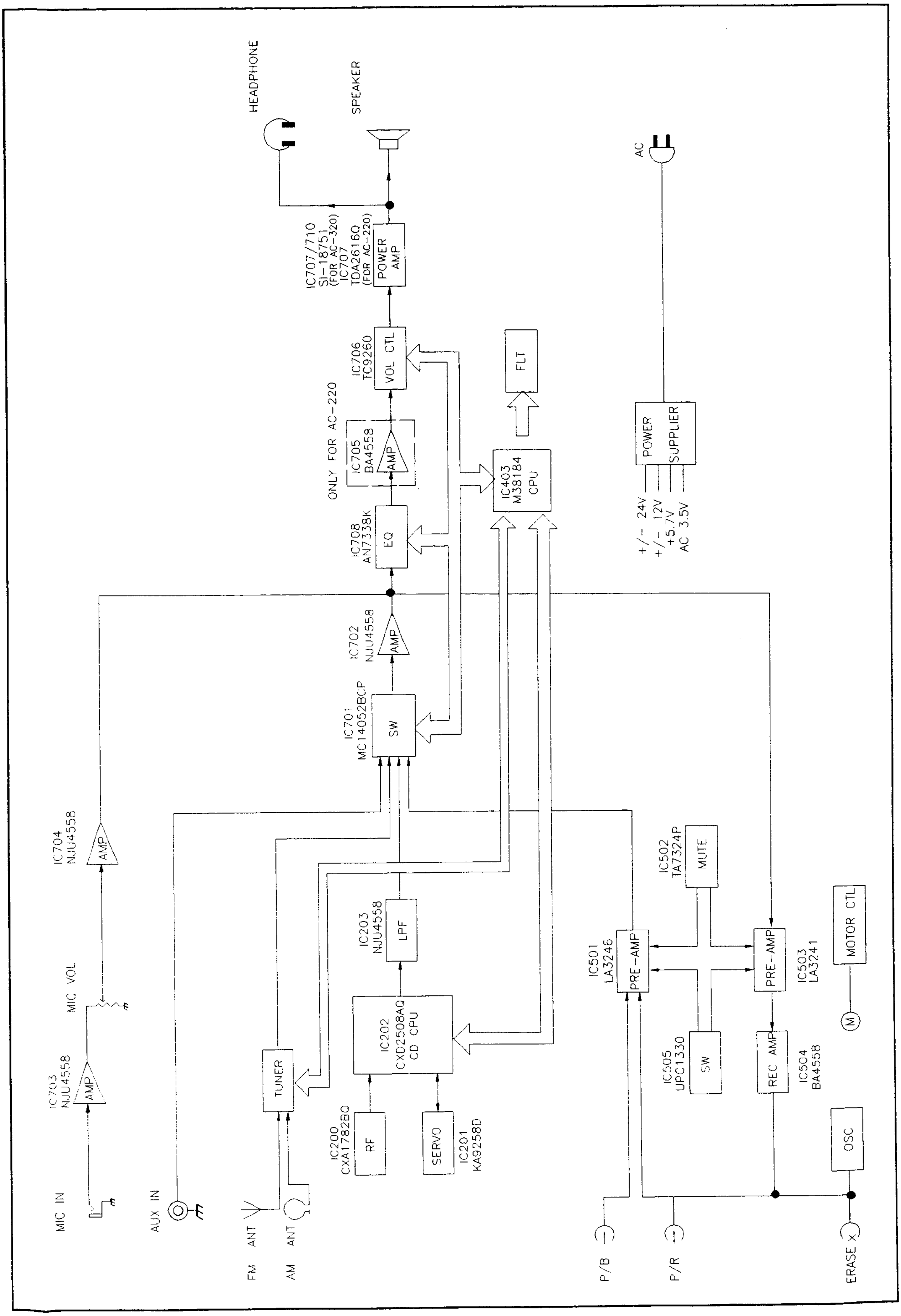
SPEAKER
AC
IC707/710
SI-18751
(FOR AC-320)
IC707
TDA2616Q
(FOR AC-220)
POWER AMP
IC706
TC9260
VOL CTL
FLT
ONLY FOR AC-220
IC705
BA4558
AMP
IC403
M38184
CPU
POWER SUPPLIER
+/- 24V
+/- 12V
+5.7V
AC 3.5V
IC708
AN7338K
EQ
IC702
NJU4558
AMP
IC701
MC14052BCP
SW
IC704
NJU4558
AMP
MIC VOL
IC703
NJU4558
AMP
MIC IN
AUX IN
FM ANT
AM ANT
TUNER
IC203
NJU4558
LPF
IC202
CXD2508AQ
CD CPU
IC200
CXA1782BQ
RF
SERVO
IC201
KA9258D
IC502
TA7324P
MUTE
IC501
LA3246
PRE-AMP
PRE-AMP
IC503
LA3241
MOTOR CTL
M
IC505
UPC1330
SW
REC AMP
IC504
BA4558
OSC
P/B
P/R
ERASE

14. SPEAKER SYSTEM (SR-225)



REF. NO	PART NO	DESCRIPTION
1	286-385002-02S	NAME PLATE FOR AKAI
2	583-051401-01	SPEAKER CLOTH
3	239-051402-01R	FRAME NET (R)
4	259-050201-01Z	CUSHION FOR SPEAKER BOX BLK S.B.R
5	610-350220-10	SELF-TAPPING SCREW R/T 3.5X20MM
6	205-051402-01R	CABINET FRONT (R)
7	614-400216-30	SELF-TAPPING SCREW R/T 4.0X16MM BLACK
8	066-252254-WT	WOOFER SPEAKER
9	229-050501-01R	SPEAKER BRACKET
10	259-381301-01	CUSHION
11	070-100027-02Z	27MM PIEZO
12	066-272221-WT	MIDRANGE SPEAKER
13	462-333202-01	SPEAKER CLIP
14	612-300210-10	SELF-TAPPING SCREW 3X10MM

VI. BLOCK DIAGRAM


HEADPHONE
SPEAKER
AC
IC707/710
SI-18751
(FOR AC-320)
IC707
TDA2616Q
(FOR AC-220)
POWER AMP
IC706
TC9260
VOL CTL
ONLY FOR AC-220
IC705
BA4558
AMP
FLT
IC403
M38184
CPU
POWER SUPPLIER
+/- 24V
+/- 12V
+5.7V
AC 3.5V
IC708
AN7338K
EQ
IC702
NJU4558
AMP
IC701
MC14052BCP
SW
IC704
NJU4558
AMP
MIC VOL
IC703
NJU4558
AMP
MIC IN
AUX IN
FM ANT
AM ANT
TUNER
IC203
NJU4558
LPF
IC202
CXD2508AQ
CD CPU
IC200
CXA1782BQ
RF
SERVO
IC201
KA9258D
IC502
TA7324P
MUTE
IC501
LA3246
PRE-AMP
IC503
LA3241
PRE-AMP
MOTOR CTL
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REC AMP
IC504
BA4558
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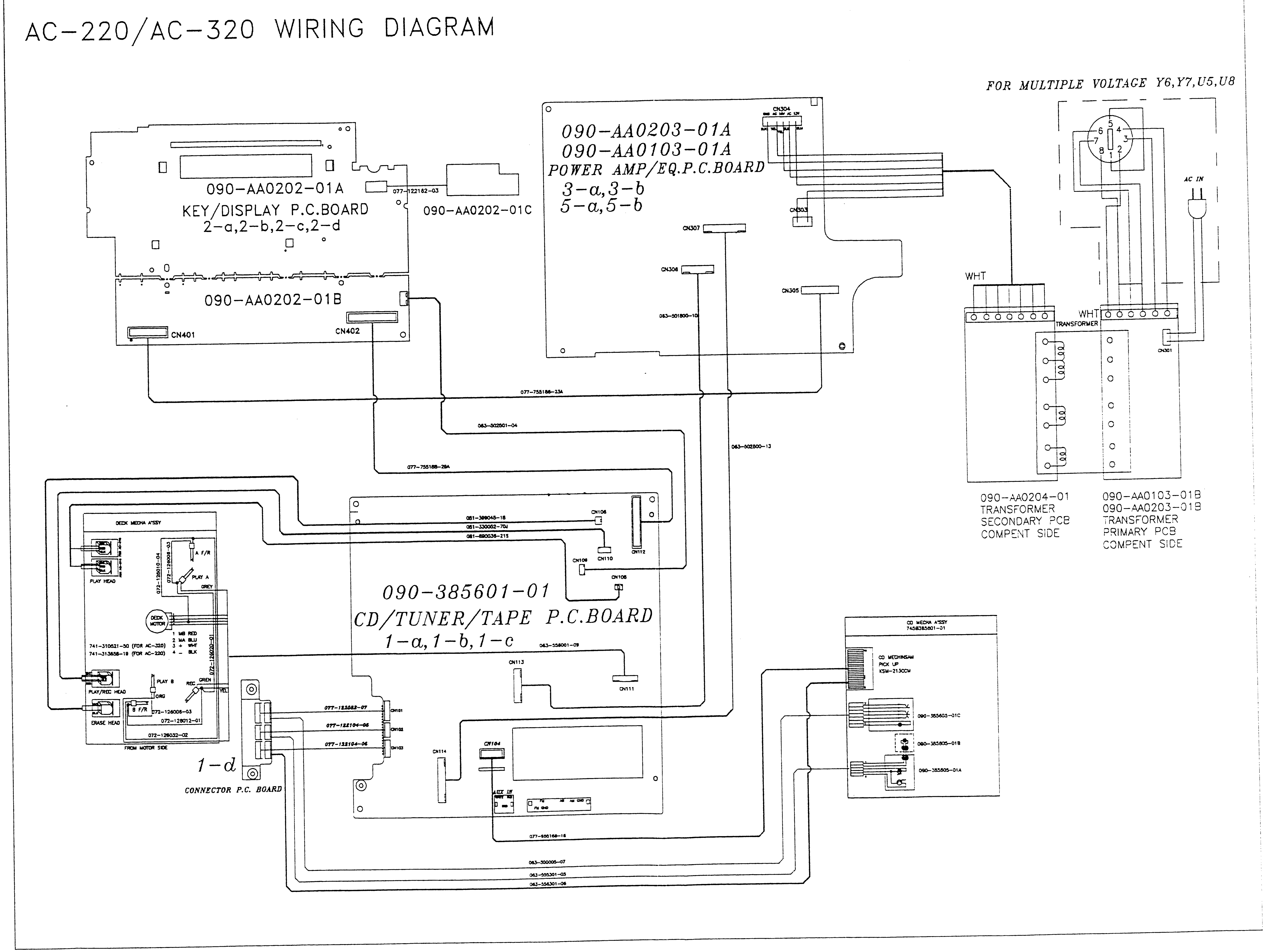
P/B
P/R
ERASE

VII. WIRING DIAGRAM



AC-220/AC-320 WIRING DIAGRAM

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090-AA0202-01C
090-AA0202-01B
CN401
CN402
090-AA0203-01A
090-AA0103-01A
POWER AMP/EQ.P.C.BOARD
3-a,3-b
5-a,5-b
CN304
GND AC 14V AC 13V
CN303
CN307
CN308
CN305
063-501800-10
FOR MULTIPLE VOLTAGE Y6,Y7,U5,U8
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AC IN
WHT
WHT
TRANSFORMER
CN301
090-AA0204-01
TRANSFORMER
SECONDARY PCB
COMPENT SIDE
090-AA0103-01B
090-AA0203-01B
TRANSFORMER
PRIMARY PCB
COMPENT SIDE
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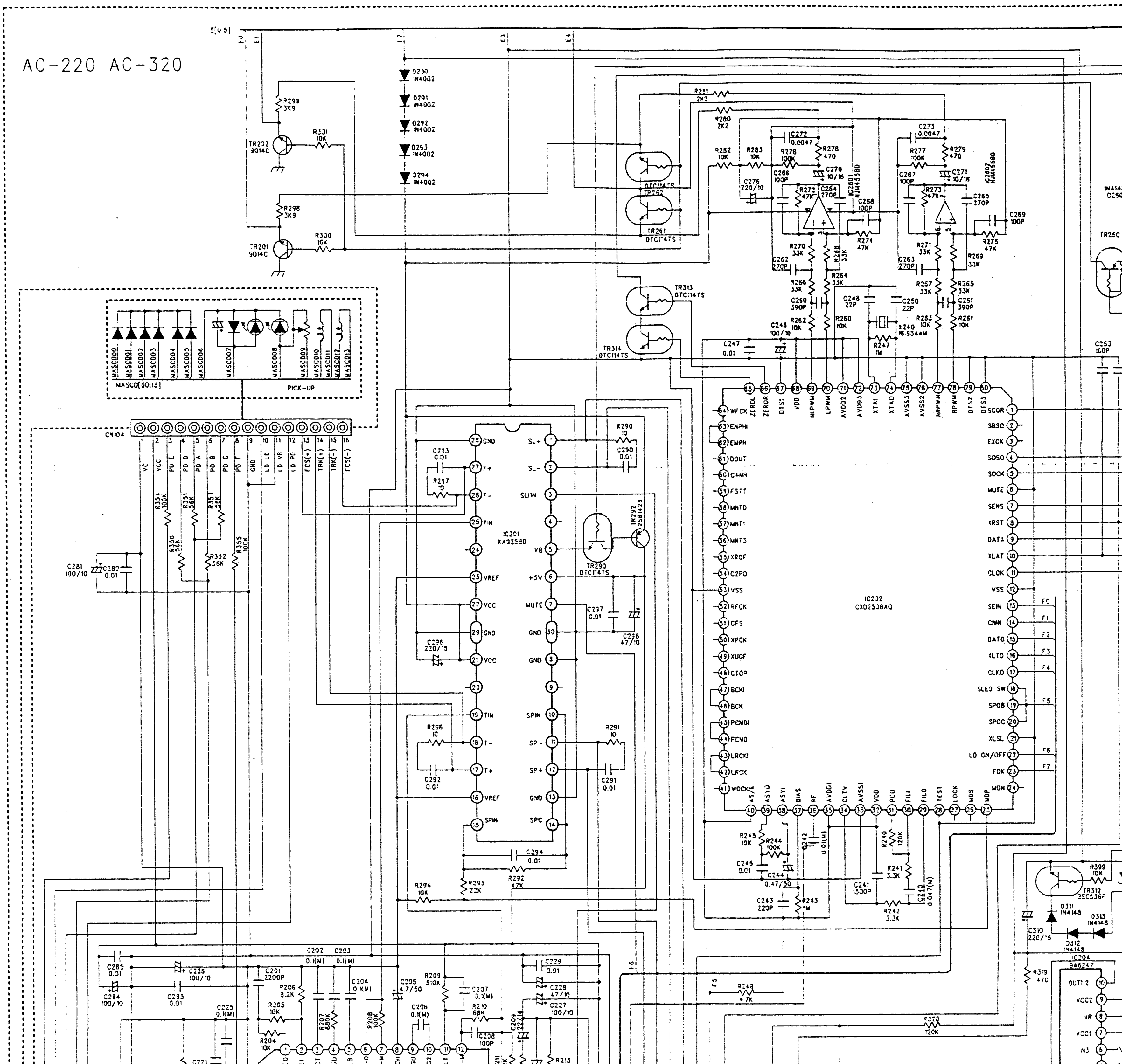
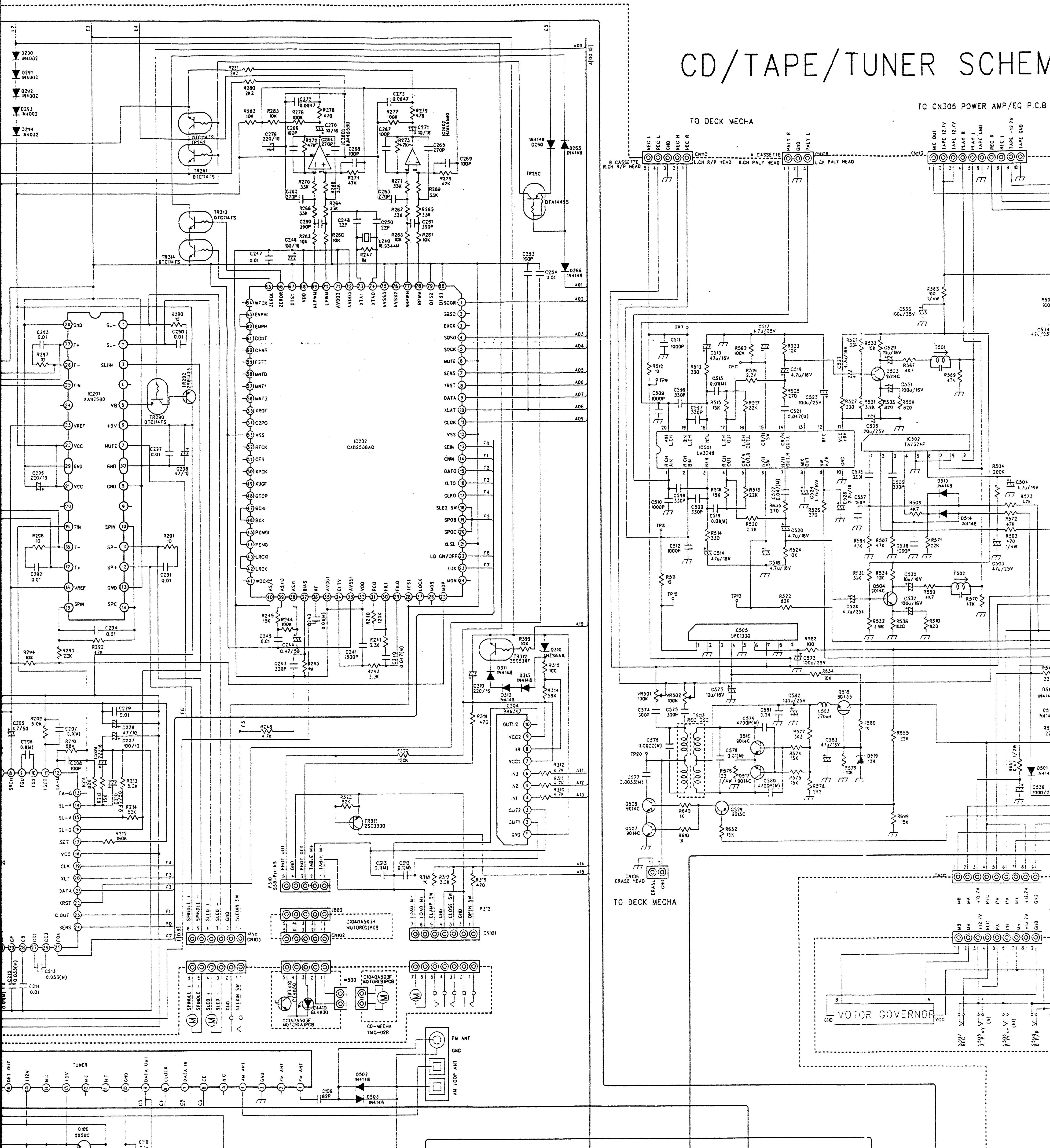
063-502801-04
063-502800-13
077-755188-29A
DECK MECHA A'SSY
PLAY HEAD
A F/R
072-126010-04
072-126008-03
PLAY A
GREY
DECK MOTOR
1 MB RED
2 MA BLU
3 + WHT
4 - BLK
741-310621-50 (FOR AC-320)
741-313858-19 (FOR AC-220)
072-126020-01
PLAY B
REC
GREN
YEL
ORG
PLAY/REC HEAD
B F/R
072-126006-03
072-126012-01
ERASE HEAD
072-126032-02
FROM MOTOR SIDE
1-d
CONNECTOR P.C. BOARD
081-399045-18
081-330062-70J
081-890036-215
CN106
CN110
CN112
CN109
CN108
090-385601-01
CD/TUNER/TAPE P.C.BOARD
1-a,1-b,1-c
063-558001-09
CN113
CN111
077-122082-07
077-122104-06
077-122104-06
CN101
CN102
CN103
CN114
CN104
AUX IN
FM
AM
AM GND
FM GND
077-908168-18
063-500005-07
063-555301-05
063-558301-06
CD MECHA A'SSY
7458385801-01
CD MECHINSAM
PICK UP
KSM-213CCM
090-385605-01C
090-385605-01B
090-385605-01A

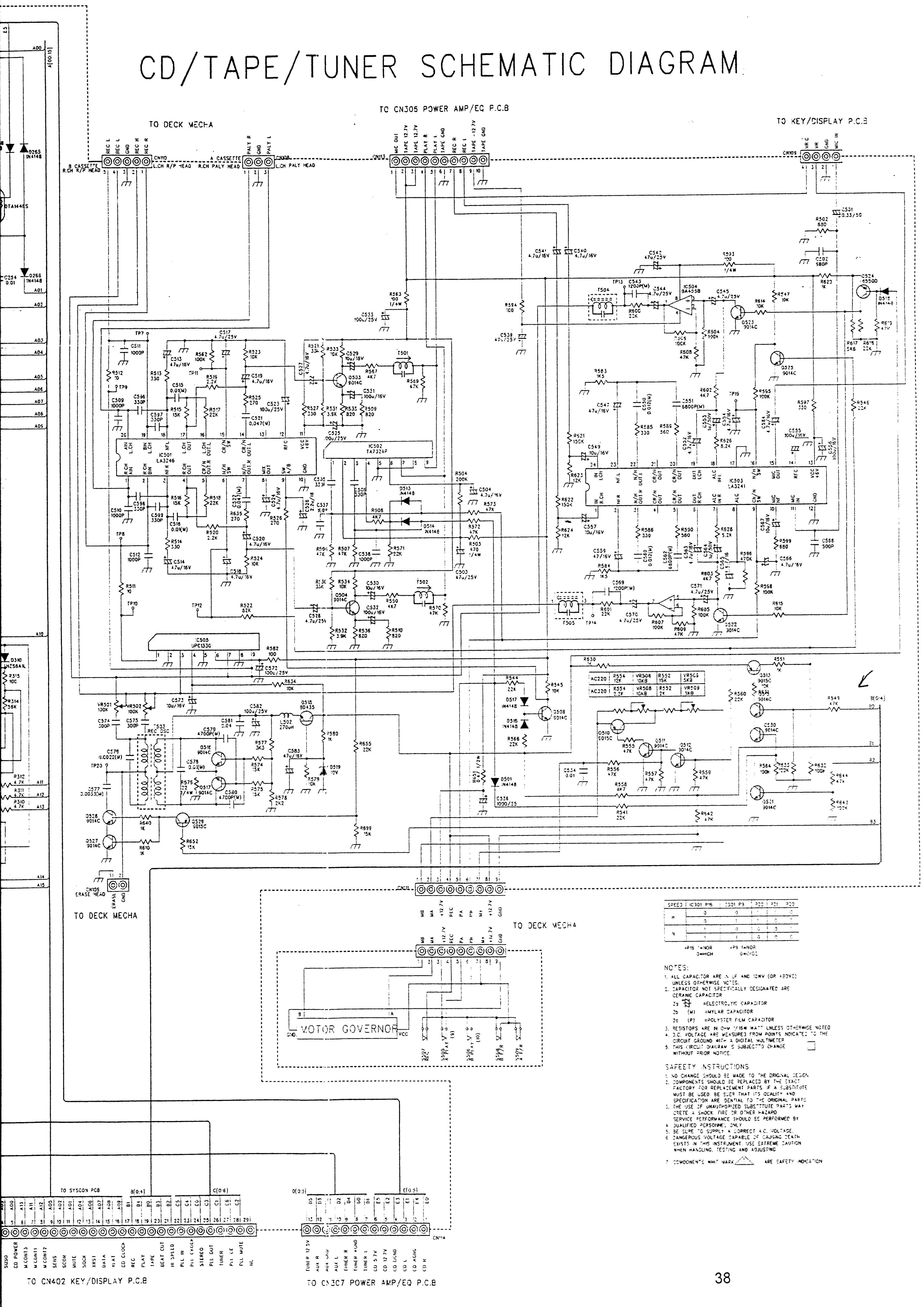
VIII. SCHMEMATIC DIAGRAM


AC-220 AC-320
IC201 KA9258D
IC202 CXA1782BQ
IC232 CXD2538AQ
IC204 BA6247
IC2601 NJM4558D
IC2602 NJM4558D
PICK-UP
MASCD[00:13]
CN104
TR201 9014C
TR202 9014C
TR200 2SA1317
TR261 DTC114TS
TR262 DTC114TS
TR313 DTC114TS
TR314 DTC114TS
TR290 DTC114TS
TR292 2SB1425
TR311 2SC3330
TR312 2SC538F
D290 1N4002
D291 1N4002
D292 1N4002
D293 1N4002
D294 1N4002
X240 16.9344M
VR200 10K
P310 S5B-PH-KS
P311 CN103
P312 CN101
CN102
J600
CD-MECHA YMC-02R
C1040A503H MOTOR(C)PCB
C1040A503E MOTOR(B)PCB
C1040A503E MOTOR(A)PCB
SPINDLE +
SPINDLE -
SLED +
SLED -
GND
SLEDIN SW
LOAD M+
LOAD M-
CLAMP SW
CLOSE SW
OPEN SW
PHOT OUT
PHOT DET
TABLE M+
TABLE M-
TUNER
NC
STEREO
TUNED
T.MUTE
RCH
LCH
DET OUT
+12V
+5V
DATA OUT
CLOCK
DATA IN
CE
AM ANT
FM ANT
AM LOOP ANT
D502 1N4148
D503 1N4148
Q101 8050C
Q102 9014C
Q103 9014C
Q104 8015C
Q105 9014C
Q106 8050C
D101 1N4148
D102 6.2V
L101 12uH
L102 12uH
AUX L
AUX R
C[0:6]
D[0:5]
A[00:15]
CN112
MODE SW
M.CONT4
PHOT IN
F[0:9]
E[0:5]

CD/TAPE/TUNER SCHEM


TO DECK MECHA
TO CN305 POWER AMP/EQ P.C.B
B CASSETTE R.CH R/P HEAD
L.CH R/P HEAD
A CASSETTE R.CH PALY HEAD
L.CH PALY HEAD
CN110
CN108
CN113
IC201 KA9258D
IC232 CXD2538AQ
IC280 NJM4558D
IC2802 NJM4558D
X240 16.9344M
TR250 DTA144ES
TR261 DTC114TS
TR262
TR313 DTC114TS
TR314 DTC114TS
TR290 DTC114TS
IC501 LA3246
IC502 TA7324P
IC505 UPC1330
IC204 BA6247
TR312 2SC536F
TR311 2SC3330
T501
T502
T503 REC OSC
Q515 9D435
Q503 9014C
Q504 9014C
Q528 9014C
Q527 9014C
Q529 9015C
CN105 ERASE HEAD
TO DECK MECHA
P310 SSB-PH-K5
P311 CN103
CN102
CN101
P312
C1040A503H MOTOR(C)PCB
C1040A503F MOTOR(B)PCB
C1040A503E MOTOR(A)PCB
CD-MECHA YMC-02R
W500
SPINDLE +
SPINDLE -
SLED +
SLED -
GND
SLEDIN SW
LOAD M+
LOAD M-
CLAMP SW
GND
CLOSE SW
GND
OPEN SW
MOTOR GOVERNOR
GND
VCC
FM ANT
GND
AM LOOP ANT
TUNER
DET OUT
12V
NC
15V
NC
NC
GND
DATA OUT
CLOCK
DATA IN
CE
NC
AM ANT
GND
FM ANT
FM ANT
AUX L
AUX R
L101 12uH
L102 12uH
C107 560P
C108 560P
A[00:15]
TO SYSCON PCB
B[0:4]
C[0:6]
D[0:5]
E[0:5]
CN112
CN114
MODE SW
PHOT IN
SUSO
CD POWER
M CONT1
M CONT2
M CONT3
SENS
SCOR
MUTE
SOCK
XRST
DATA
XLAT
CD CLOCK
REC
PLAY
TAPE
BEAT CUT
HI SPEED
PLL CK
STEREO
PLL OUT
TUNER
PLL CE
PLL MUTE
NC
TUNER 12.5V
AUX R
AUX L
TUNER GND
TUNER L
CD 5.7V
CD 12.7V
CD GND
CD L
CD AGND
CD R
TO CN402 KEY/DISPLAY P.C.B
TO CN307 POWER AMP/EQ P.C.B

CD/TAPE/TUNER SCHEMATIC DIAGRAM


TO CN305 POWER AMP/EQ P.C.B
TO DECK MECHA
TO KEY/DISPLAY P.C.B
B CASSETTE R.CH R/P HEAD
L.CH R/P HEAD
A CASSETTE R.CH PALY HEAD
L.CH PALY HEAD
CN110
CN108
CN113
CN109
IC501 LA3246
IC502 TA7324P
IC503 LA3241
IC504 BA4558
IC505 UPC1330
CN105 ERASE HEAD
TO DECK MECHA
MOTOR GOVERNOR
TO SYSCON PCB
TO CN402 KEY/DISPLAY P.C.B
TO CN307 POWER AMP/EQ P.C.B
CN114
CN111

SPEED	IC301 P16	IC301 P9	P22	P21	P20
H	0	0	1	1	0
	0	1	1	0	1
N	1	0	0	0	1
	1	1	0	0	0

•P16 1=NOR
0=HIGH

•P9 1=NOR
0=CrO2

NOTES:

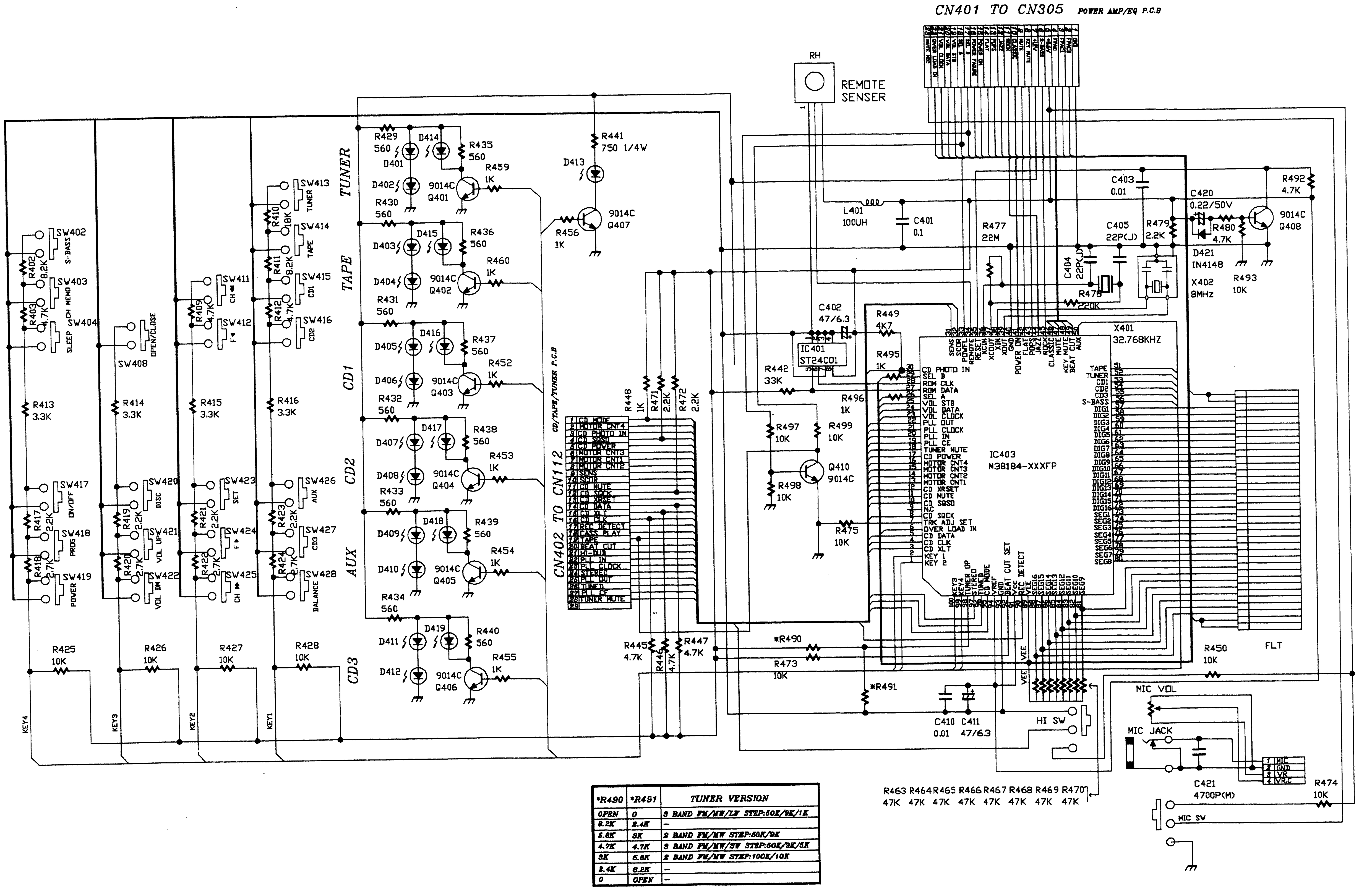
1. ALL CAPACITOR ARE IN UF AND 10WV (OR ABOVE) UNLESS OTHERWISE NOTED.
2. CAPACITOR NOT SPECIFICALLY DESIGNATED ARE CERANIC CAPACITOR
   - 2a ╪ =ELECTROLYIC CAPACITOR
   - 2b (M) =MYLAR CAPACITOR
   - 2c (P) =POLYSTER FILM CAPACITOR
3. RESISTORS ARE IN OHM 1/16W WATT UNLESS OTHERWISE NOTED
4. D.C. VOLTAGE ARE MEASURED FROM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER
5. THIS CIRCUIT DIAGRAM IS SUBJECTTO CHANGE WITHOUT PRIOR NOTICE.

SAFEETY INSTRUCTIONS

1. NO CHANGE SHOULD BE MADE TO THE ORIGINAL DESIGN
2. COMPONENTS SHOULD BE REPLACED BY THE EXACT FACTORY FOR REPLACEMENT PARTS IF A SUBSTITUTE MUST BE USED. BE SUER THAT ITS QUALITY AND SPECIFICATION ARE IDENTIAL TO THE ORIGINAL PARTS
3. THE USE OF UNAUTHORIZED SUBSTTTUTE PARTS MAY CRETE A SHOCK, FIRE OR OTHER HAZARD SERVICE PERFORMANCE SHOULD BE PERFORMED BY
4. QUALIFIED PERSONNEL ONLY
5. BE SURE TO SUPPLY A CORRECT A.C. VOLTAGE.
6. DANGEROUS VOLTAGE CAPABLE OF CAUSING DEATH EXISTS IN THIS INSTRUMENT. USE EXTREME CAUTION WHEN HANDLING, TESTING AND ADJUSTING
7. COMOONENTS WHIT MARK △ ARE SAFETY INDICATION

AC-220
AC-320

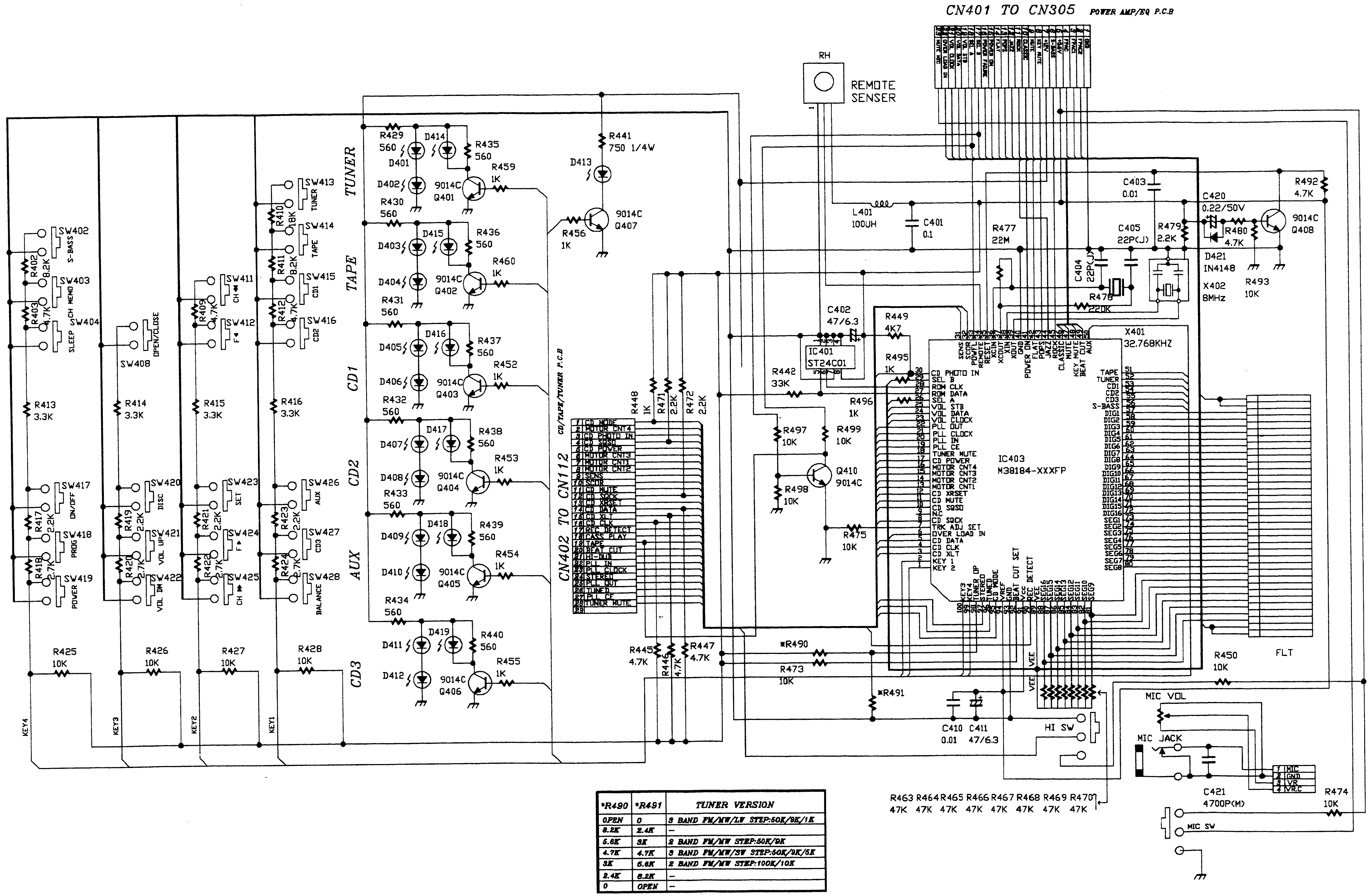
KEY/DISPLAY SCHEMATIC DIAGRAM


CN401 TO CN305 POWER AMP/EQ P.C.B
RH
REMOTE SENSER
SW402 S-BASS
SW403 CH MEMO
SW404 SLEEP
SW408 OPEN/CLOSE
SW411 CH ◄◄
SW412 F◄
SW413 TUNER
SW414 TAPE
SW415 CD1
SW416 CD2
SW417 ON/OFF
SW418 PROG
SW419 POWER
SW420 DISC
SW421 VOL UP
SW422 VOL DN
SW423 SET
SW424 F►
SW425 CH ►►
SW426 AUX
SW427 CD3
SW428 BALANCE
R402 8.2K
R403 4.7K
R409 4.7K
R410 18K
R411 8.2K
R412 4.7K
R413 3.3K
R414 3.3K
R415 3.3K
R416 3.3K
R417 2.2K
R418 2.7K
R419 2.2K
R420 2.7K
R421 2.2K
R422 2.7K
R423 2.2K
R424 2.7K
R425 10K
R426 10K
R427 10K
R428 10K
KEY4
KEY3
KEY2
KEY1
TUNER
TAPE
CD1
CD2
AUX
CD3
R429 560
R430 560
R431 560
R432 560
R433 560
R434 560
D401
D402
D403
D404
D405
D406
D407
D408
D409
D410
D411
D412
D413
D414
D415
D416
D417
D418
D419
R435 560
R436 560
R437 560
R438 560
R439 560
R440 560
R459 1K
R460 1K
R452 1K
R453 1K
R454 1K
R455 1K
9014C Q401
9014C Q402
9014C Q403
9014C Q404
9014C Q405
9014C Q406
R441 750 1/4W
R456 1K
9014C Q407
CD/TAPE/TUNER P.C.B
CN402 TO CN112
1 CD MODE
2 MOTOR CNT4
3 CD PHOTO IN
4 CD SQSO
5 CD POWER
6 MOTOR CNT3
7 MOTOR CNT1
8 MOTOR CNT2
9 SENS
10 SCOR
11 CD MUTE
12 CD SQCK
13 CD XRSET
14 CD DATA
15 CD XLT
16 CD CLK
17 REC DETECT
18 CASS PLAY
19 TAPE
20 BEAT CUT
21 HI-DUB
22 PLL IN
23 PLL CLOCK
24 STEREO
25 PLL OUT
26 TUNED
27 PLL CE
28 TUNER MUTE
29
R448 1K
R471 2.2K
R472 2.2K
R445 4.7K
R446 4.7K
R447 4.7K
L401 100UH
C401 0.1
C402 47/6.3
IC401 ST24C01
R442 33K
R449 4K7
R495 1K
R496 1K
R497 10K
R499 10K
R498 10K
Q410 9014C
R475 10K
R477 22M
C403 0.01
C405 22P(J)
C404 22P(J)
R479 2.2K
R478 220K
X402 8MHz
X401 32.768KHZ
C420 0.22/50V
R480 4.7K
D421 IN4148
R492 4.7K
9014C Q408
R493 10K
IC403 M38184-XXXFP
CD PHOTO IN
SEL B
ROM CLK
ROM DATA
SEL A
VOL STB
VOL DATA
VOL CLOCK
PLL OUT
PLL CLOCK
PLL IN
PLL CE
TUNER MUTE
CD POWER
MOTOR CNT4
MOTOR CNT3
MOTOR CNT2
MOTOR CNT1
CD XRSET
CD MUTE
CD SQSO
N.C
CD SQCK
TRK ADJ SET
OVER LOAD IN
CD DATA
CD CLK
CD XLT
KEY 1
KEY 2
SENS
SCOR
POWFL
REMOTE
RESET
XCIN
XCOUT
XIN
XOUT
GND
POWER ON
FLAT
POPS
JAZZ
ROCK
CLASSIC
MUTE
KEY MUTE
BEAT CUT
AUX
TAPE
TUNER
CD1
CD2
CD3
S-BASS
DIG1
DIG2
DIG3
DIG4
DIG5
DIG6
DIG7
DIG8
DIG9
DIG10
DIG11
DIG12
DIG13
DIG14
DIG15
DIG16
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
KEY3
KEY4
TUNER OP
STEREO
TUNED
CD MODE
VREF
GND
BEAT CUT SET
Vcc
REC DETECT
VEE
SEG16
SEG15
SEG14
SEG13
SEG12
SEG11
SEG10
SEG9
*R490
R473 10K
*R491
C410 0.01
C411 47/6.3
VEE
HI SW
R463 R464 R465 R466 R467 R468 R469 R470
47K 47K 47K 47K 47K 47K 47K 47K
R450 10K
FLT
MIC VOL
MIC JACK
C421 4700P(M)
1 MIC
2 GND
3 VR
4 VR.C
R474 10K
MIC SW

*R490	*R491	TUNER VERSION
OPEN	0	3 BAND FM/MW/LW STEP:50K/9K/1K
8.2K	2.4K	—
5.6K	3K	2 BAND FM/MW STEP:50K/9K
4.7K	4.7K	3 BAND FM/MW/SW STEP:50K/9K/5K
3K	5.6K	2 BAND FM/MW STEP:100K/10K
2.4K	8.2K	—
0	OPEN	—

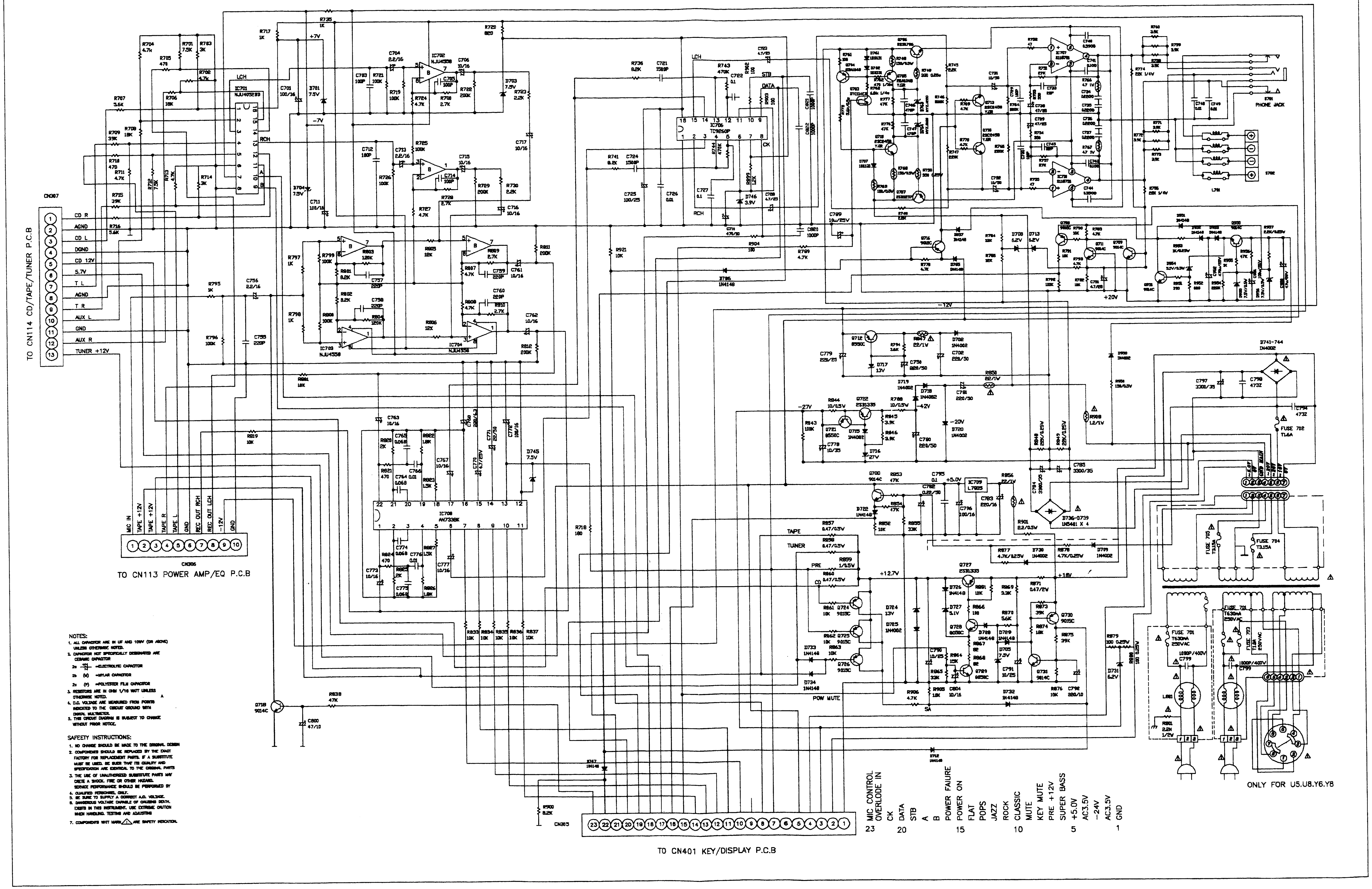
AC-220
AC-320

KEY/DISPLAY SCHEMATIC DIAGRAM


CN401 TO CN305 POWER AMP/EQ P.C.B
1 GND
2 FPACR
3 FPACL
4 FPAC
5 +5.6V
6 S-BASS
7 +12V
8 KEY MUTE
9 MUTE
10 CLASSIC
11 ROCK
12 JAZZ
13 POPS
14 FLAT
15 POWER ON
16 POWER FAILURE
17 SEL B
18 SEL A
19 VOL STB
20 VOL DATA
21 VOL CLOCK
22 OVER LOAD IN
23 MUTE MIC
RH
REMOTE SENSER
TUNER
TAPE
CD1
CD2
AUX
CD3
SW402 S-BASS
SW403 CH MEMO
SW404 SLEEP
SW408 OPEN/CLOSE
SW411 CH
SW412 F
SW413 TUNER
SW414 TAPE
SW415 CD1
SW416 CD2
SW417 ON/OFF
SW418 PROG
SW419 POWER
SW420 DISC
SW421 VOL UP
SW422 VOL DN
SW423 SET
SW424 F
SW425 CH
SW426 AUX
SW427 CD3
SW428 BALANCE
R402 8.2K
R403 4.7K
R409 4.7K
R410 18K
R411 8.2K
R412 4.7K
R413 3.3K
R414 3.3K
R415 3.3K
R416 3.3K
R417 2.2K
R418 2.7K
R419 2.2K
R420 2.7K
R421 2.2K
R422 2.7K
R423 2.2K
R424 2.7K
R425 10K
R426 10K
R427 10K
R428 10K
KEY4
KEY3
KEY2
KEY1
R429 560
R430 560
R431 560
R432 560
R433 560
R434 560
R435 560
R436 560
R437 560
R438 560
R439 560
R440 560
R459 1K
R460 1K
R452 1K
R453 1K
R454 1K
R455 1K
D401
D402
D403
D404
D405
D406
D407
D408
D409
D410
D411
D412
D413
D414
D415
D416
D417
D418
D419
9014C Q401
9014C Q402
9014C Q403
9014C Q404
9014C Q405
9014C Q406
R441 750 1/4W
9014C Q407
R456 1K
CD/TAPE/TUNER P.C.B
CN402 TO CN112
1 CD MODE
2 MOTOR CNT4
3 CD PHOTO IN
4 CD SQSO
5 CD POWER
6 MOTOR CNT3
7 MOTOR CNT1
8 MOTOR CNT2
9 SENS
10 SCOR
11 CD MUTE
12 CD SQCK
13 CD XRSET
14 CD DATA
15 CD XLT
16 CD CLK
17 REC DETECT
18 CASS PLAY
19 TAPE
20 BEAT CUT
21 HI-DUB
22 PLL IN
23 PLL CLOCK
24 STEREO
25 PLL OUT
26 TUNED
27 PLL CE
28 TUNER MUTE
29
R448 1K
R471 2.2K
R472 2.2K
R445 4.7K
R446 4.7K
R447 4.7K
L401 100UH
C401 0.1
C402 47/6.3
IC401 ST24C01
R442 33K
R449 4K7
R495 1K
R496 1K
R497 10K
R499 10K
R498 10K
Q410 9014C
R475 10K
*R490
R473 10K
*R491
R477 22M
C403 0.01
C404 22P(J)
C405 22P(J)
R479 2.2K
R478 220K
X401 32.768KHZ
X402 8MHz
C420 0.22/50V
R480 4.7K
D421 IN4148
R492 4.7K
9014C Q408
R493 10K
IC403 M38184-XXXFP
31 SENS
32 SCOR
33 POWFL
34 REMOTE
35 RESET
36 XCIN
37 XCOUT
38 XIN
39 XOUT
40 GND
41 POWER ON
42 FLAT
43 POPS
44 JAZZ
45 ROCK
46 CLASSIC
47 MUTE
48 KEY MUTE
49 BEAT CUT
50 AUX
30 CD PHOTO IN
29 SEL B
28 ROM CLK
27 ROM DATA
26 SEL A
25 VOL STB
24 VOL DATA
23 VOL CLOCK
22 PLL OUT
21 PLL CLOCK
20 PLL IN
19 PLL CE
18 TUNER MUTE
17 CD POWER
16 MOTOR CNT4
15 MOTOR CNT3
14 MOTOR CNT2
13 MOTOR CNT1
12 CD XRSET
11 CD MUTE
10 CD SQSO
9 N.C
8 CD SQCK
7 TRK ADJ SET
6 OVER LOAD IN
5 CD DATA
4 CD CLK
3 CD XLT
2 KEY 1
1 KEY 2
51 TAPE
52 TUNER
53 CD1
54 CD2
55 CD3
56 S-BASS
57 DIG1
58 DIG2
59 DIG3
60 DIG4
61 DIG5
62 DIG6
63 DIG7
64 DIG8
65 DIG9
66 DIG10
67 DIG11
68 DIG12
69 DIG13
70 DIG14
71 DIG15
72 DIG16
73 SEG1
74 SEG2
75 SEG3
76 SEG4
77 SEG5
78 SEG6
79 SEG7
80 SEG8
100 KEY3
99 KEY4
98 TUNER OP
97 STEREO
96 TUNED
95 CD MODE
94 VREF
93 GND
92 BEAT CUT SET
91 Vcc
90 REC DETECT
89 VEE
88 SEG16
87 SEG15
86 SEG14
85 SEG13
84 SEG12
83 SEG11
82 SEG10
81 SEG9
VEE
FLT
R450 10K
C410 0.01
C411 47/6.3
HI SW
MIC VOL
MIC JACK
1 MIC
2 GND
3 VR
4 VR.C
C421 4700P(M)
R474 10K
MIC SW
R463 R464 R465 R466 R467 R468 R469 R470
47K 47K 47K 47K 47K 47K 47K 47K

*R490	*R491	TUNER VERSION
OPEN	0	3 BAND FM/MW/LW STEP:50K/9K/1K
8.2K	2.4K	–
5.6K	3K	2 BAND FM/MW STEP:50K/9K
4.7K	4.7K	3 BAND FM/MW/SW STEP:50K/9K/5K
3K	5.6K	2 BAND FM/MW STEP:100K/10K
2.4K	8.2K	–
0	OPEN	–

AC-320 POWER AMP\EQ SCHEMATIC DIAGRAM


CN307
CD R
AGND
CD L
DGND
CD 12V
5.7V
T L
AGND
T R
AUX L
GND
AUX R
TUNER +12V
TO CN114 CD/TAPE/TUNER P.C.B
IC701 NJU4052B
LCH
RCH
IC702 NJU4558
IC703 NJU4558
IC704 NJU4558
IC706 TC9260P
IC708 AN7336K
IC709 L7805
STB
DATA
CK
PHONE JACK
CN306
MIC IN
TAPE +12V
TAPE +12V
TAPE R
TAPE L
GND
REC OUT RCH
REC OUT LCH
-12V
GND
TO CN113 POWER AMP/EQ P.C.B
-12V
+20V
-27V
-42V
-20V
+5.0V
+12.7V
+18V
TAPE
TUNER
PRE
CD
POW MUTE
FUSE 702 T1.6A
FUSE 703 T3.15A
FUSE 704 T3.15A
FUSE 701 T630mA 250VAC
D736-D739 1N5401 X 4
D741-744 1N4002
MIC CONTROL
OVERLODE IN
CK
DATA
STB
A
B
POWER FAURE
POWER ON
FLAT
POPS
JAZZ
ROCK
CLASSIC
MUTE
KEY MUTE
PRE +12V
SUPER BASS
+5.0V
AC3.5V
-24V
AC3.5V
GND
23
20
15
10
5
1
CN303
TO CN401 KEY/DISPLAY P.C.B
ONLY FOR U5.U8.Y6.Y8

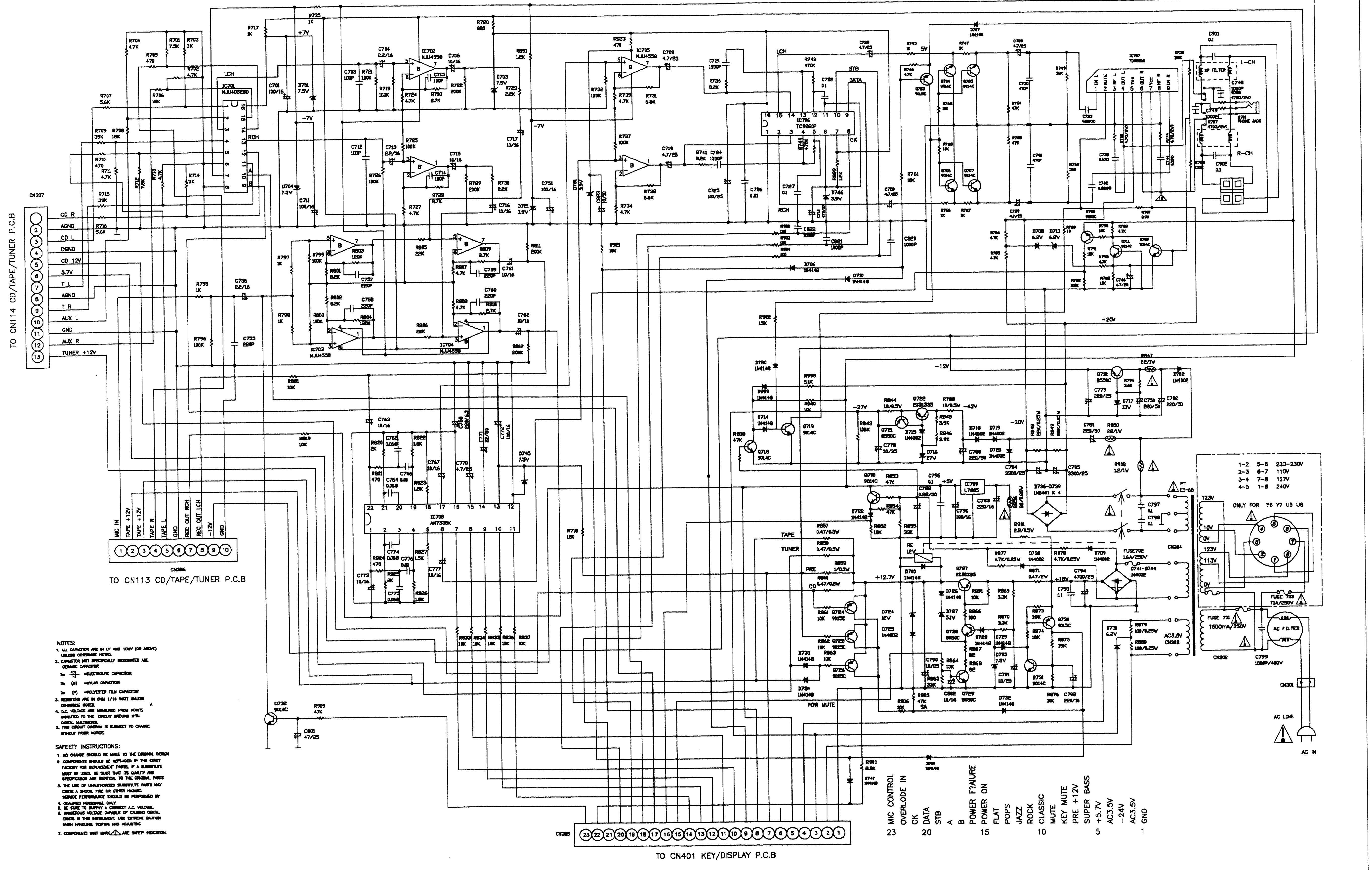
NOTES:

1. ALL CAPACITOR ARE IN UF AND 10WV (OR ABOVE) UNLESS OTHERWISE NOTED.
2. CAPACITOR NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR
   - 2a ‑||‑ =ELECTROLYTIC CAPACITOR
   - 2b (M) =MYLAR CAPACITOR
   - 2c (P) =POLYESTER FILM CAPACITOR
3. RESISTORS ARE IN OHM 1/16 WATT UNLESS OTHERWISE NOTED.
4. D.C. VOLTAGE ARE MEASURED FROM POINTS INDICATED TO THE CIRCUIT GROUND WITH DIGITAL MULTIMETER.
5. THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SAFEETY INSTRUCTIONS:

1. NO CHANGE SHOULD BE MADE TO THE ORIGINAL DESIGN
2. COMPONENTS SHOULD BE REPLACED BY THE EXACT FACTORY FOR REPLACEMENT PARTS. IF A SUBSTITUTE MUST BE USED. BE SUER THAT ITS QUALITY AND SPECIFICATION ARE IDENTICAL TO THE ORIGINAL PARTS
3. THE USE OF UNAUTHORIZED SUBSTITUTE PARTS MAY CRETE A SHOCK. FIRE OR OTHER HAZARD. SERVICE PERFORMANCE SHOULD BE PERFORMED BY
4. QUALIFIED PERSONNEL ONLY.
5. BE SURE TO SUPPLY A CORRECT A.C. VOLTAGE.
6. DANGEROUS VOLTAGE CAPABLE OF CAUSING DEATH. EXISTS IN THIS INSTRUMENT. USE EXTREME CAUTION WHEN HANDLING. TESTING AND ADJUSTING
7. COMPONENTS WHIT MARK ⚠ ARE SAFETY INDICATION.

AC-220 POWER AMP\EQ SCHEMATIC DIAGRAM


CN307
CD R
AGND
CD L
DGND
CD 12V
5.7V
T L
AGND
T R
AUX L
GND
AUX R
TUNER +12V
TO CN114 CD/TAPE/TUNER P.C.B
MIC IN
TAPE +12V
TAPE +12V
TAPE R
TAPE L
GND
REC OUT RCH
REC OUT LCH
-12V
GND
CN306
TO CN113 CD/TAPE/TUNER P.C.B
IC701 NJU4052BD
IC702 NJU4558
IC703 NJU4558
IC704 NJU4558
IC705 NJU4558
IC706 TC9854P
IC707 TDA8136
IC708 AN7338K
IC709 L7805
LCH
RCH
STB
DATA
CK
+7V
-7V
+20V
-12V
-27V
-42V
-20V
+5V
+12.7V
+18V
5V
L-CH
R-CH
SP FILTER
PHONE JACK
TAPE
TUNER
PRE
CD
POW MUTE
PT EI-66
1-2 5-8 220-230V
2-3 6-7 110V
3-4 7-8 127V
4-5 1-8 240V
ONLY FOR Y6 Y7 U5 U8
FUSE 702 1.6A/250V
FUSE 703 T1A/250V
FUSE 701 T500mA/250V
AC FILTER
C799 1000P/400V
CN384
CN383
CN302
CN301
AC3.5V
AC LINE
AC IN
CN385
MIC CONTROL
OVERLODE IN
CK
DATA
STB
A
B
POWER F?AURE
POWER ON
FLAT
POPS
JAZZ
ROCK
CLASSIC
MUTE
KEY MUTE
PRE +12V
SUPER BASS
+5.7V
AC3.5V
-24V
AC3.5V
GND
23
20
15
10
5
1
TO CN401 KEY/DISPLAY P.C.B

NOTES:

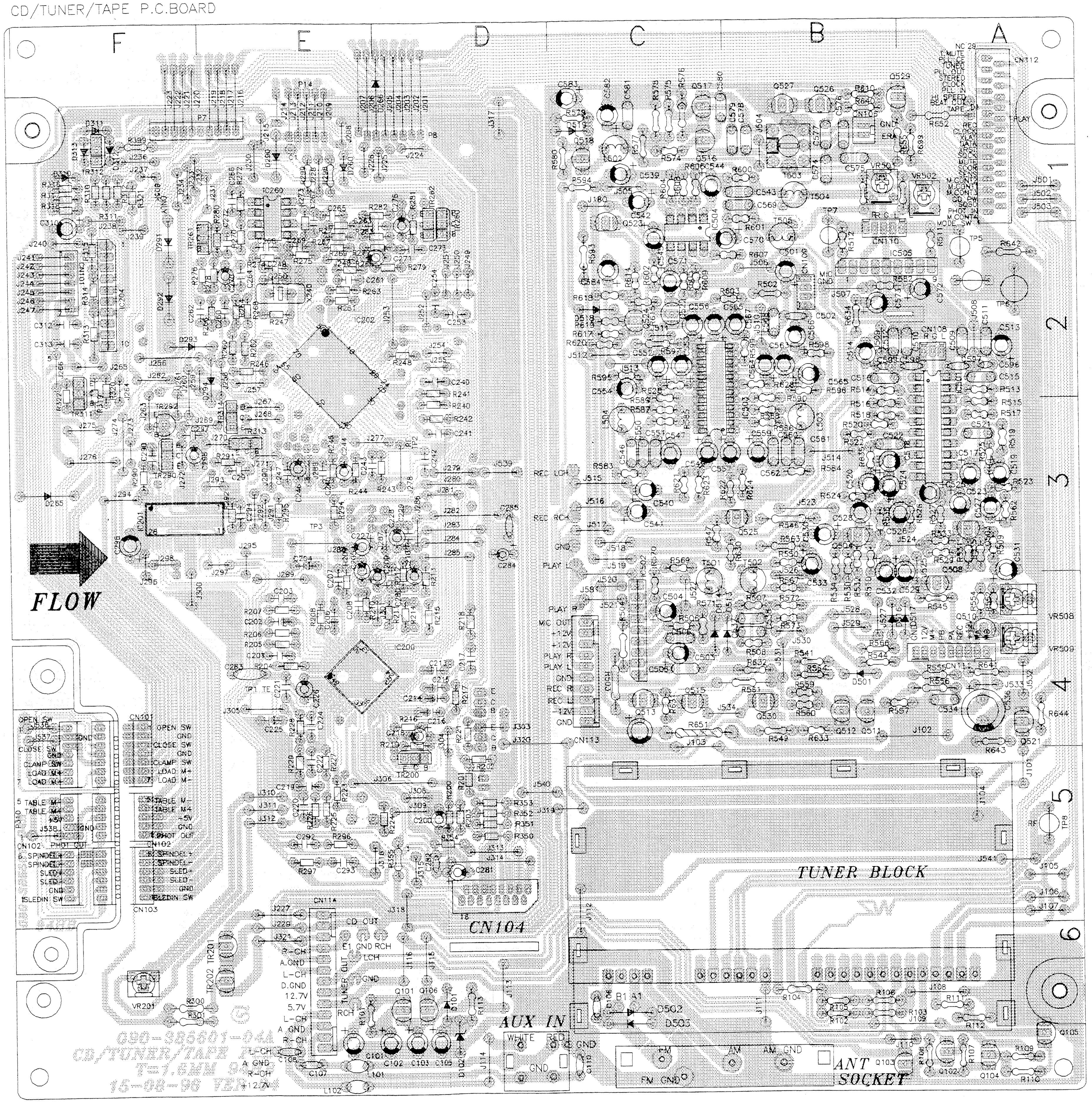
1. ALL CAPACITOR ARE IN UF AND 100V (OR ABOVE) UNLESS OTHERWISE NOTED.
2. CAPACITOR NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR
   - 2a =ELECTROLYIC CAPACITOR
   - 2b (M) =MYLAR CAPACITOR
   - 2a (P) =POLYESTER FILM CAPACITOR
3. RESISTORS ARE IN OHM 1/16 WATT UNLESS OTHERWISE NOTED.
4. D.C. VOLTAGE ARE MEASURED FROM POINTS INDICATED TO THE CIRCUIT GROUND WITH DIGITAL MULTIMETER.
5. THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SAFEETY INSTRUCTIONS:

1. NO CHANGE SHOULD BE MADE TO THE ORIGINAL DESIGN
2. COMPONENTS SHOULD BE REPLACED BY THE EXACT FACTORY FOR REPLACEMENT PARTS. IF A SUBSTITUTE MUST BE USED. BE SUER THAT ITS QUALITY AND SPECIFICATION ARE IDENTICAL TO THE ORIGINAL PARTS
3. THE USE OF UNAUTHORIZED SUBSTITUTE PARTS MAY CRETE A SHOCK. FIRE OR OTHER HAZARD. SERVICE PERFORMANCE SHOULD BE PERFORMED BY
4. QUALIFIED PERSONNEL ONLY.
5. BE SURE TO SUPPLY A CORRECT A.C. VOLTAGE.
6. DANGEROUS VOLTAGE CAPABLE OF CAUSING DEATH. EXSITS IN THIS INSTRUMENT. USE EXTREME CAUTION WHEN HANDLING. TESTING AND ADJUSTING
7. COMPONENTS WHIT MARK △ ARE SAFETY INDICATION.

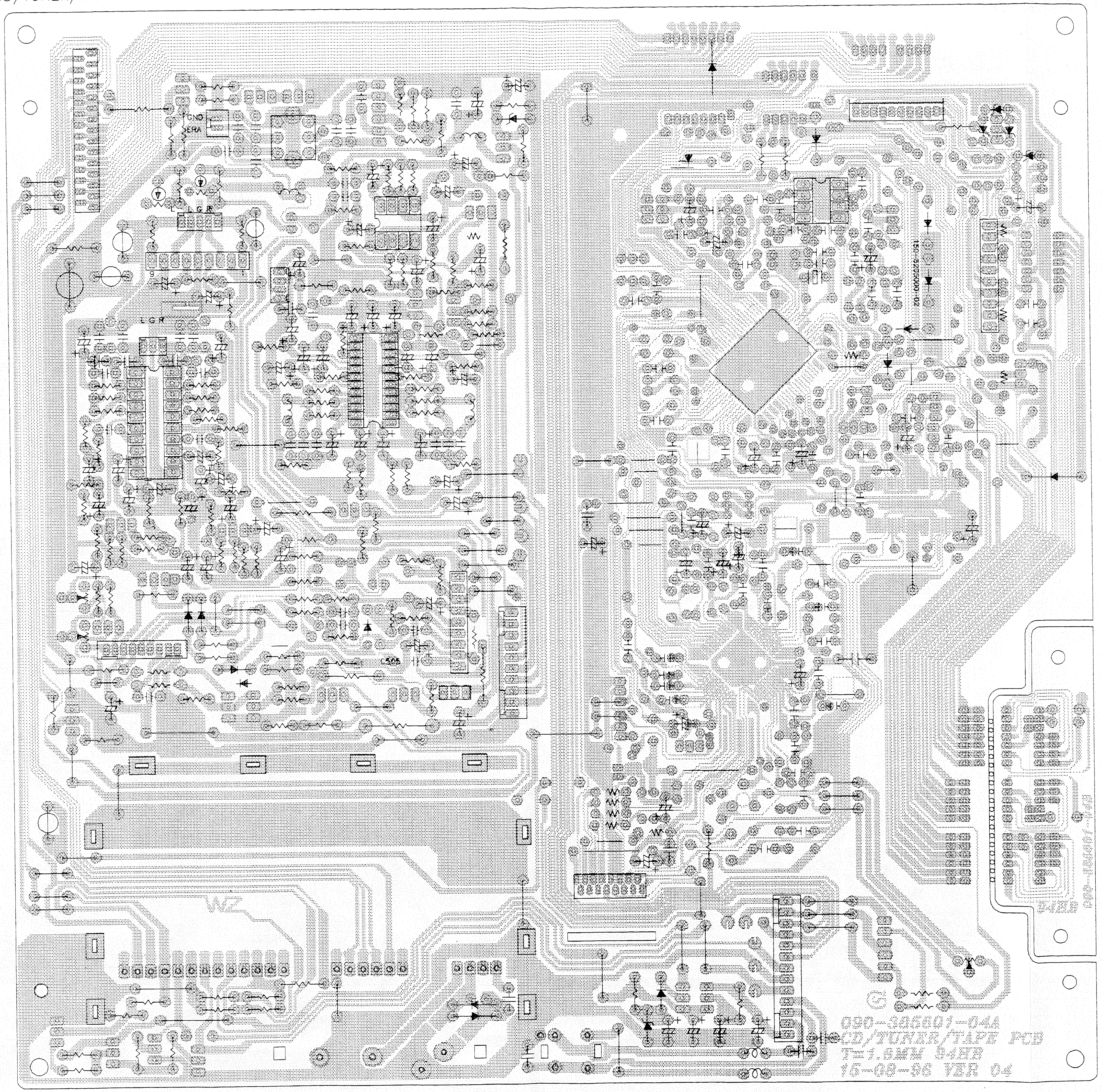
IX. PCB COMPONENT DIAGRAM

AC-220/AC-320
CD/TUNER/TAPE P.C.BOARD


F
E
D
C
B
A
1
2
3
4
5
6
FLOW
TUNER BLOCK
CN104
AUX IN
WHITE
RED
GND
FM
AM
AM GND
FM GND
ANT SOCKET
CN101
CN102
CN103
CN111
CN112
CN113
CD OUT
REC LCH
REC RCH
PLAY L
PLAY R
VR201
VR501
VR502
VR508
VR509

TOP VIEW

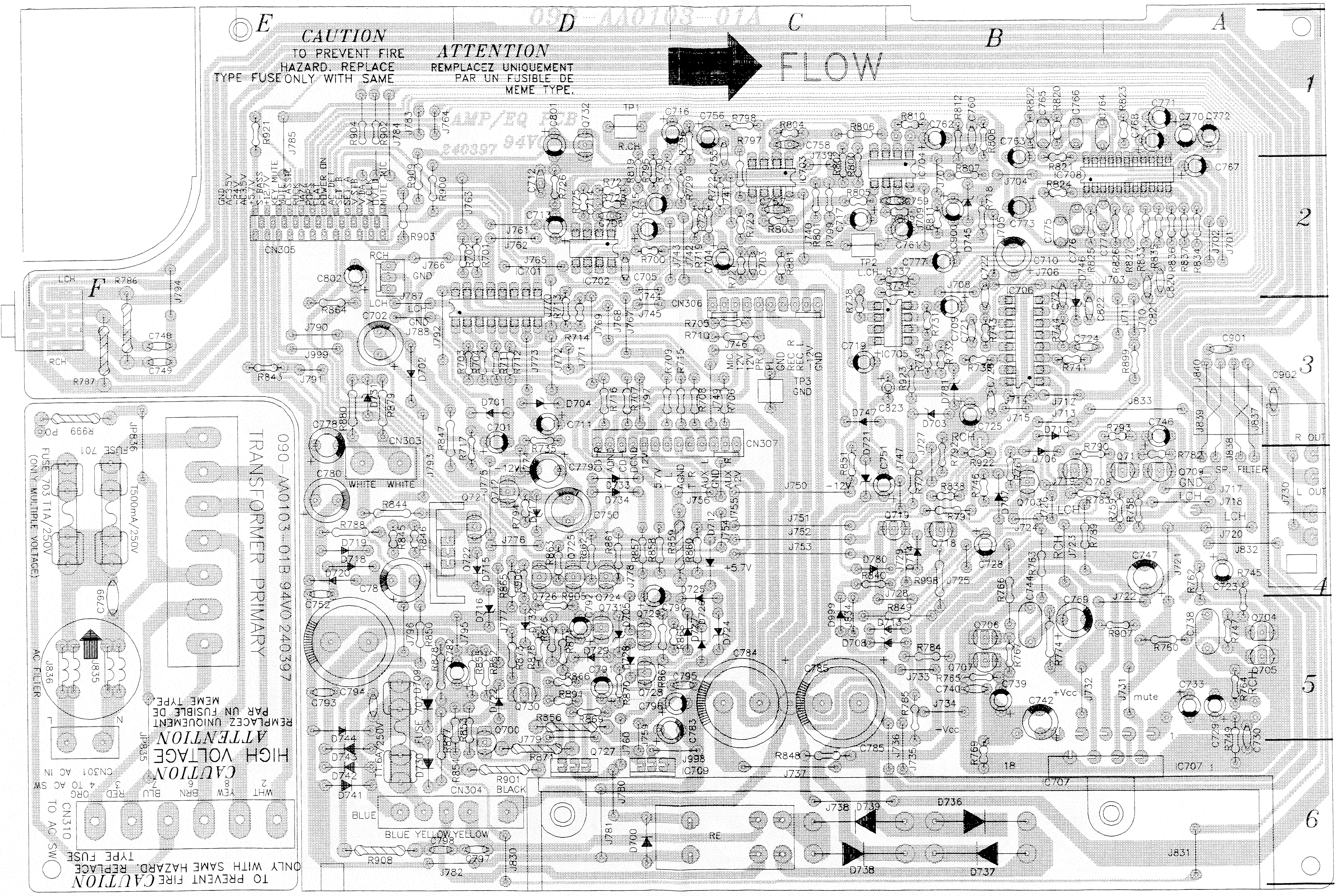
AC-220/AC-320
CD/TUNER/TAPE P.C.BOARD


GND
ERA
L G R
L G R
C505
090-385601-04A
CD/TUNER/TAPE PCB
T=1.6MM 94HB
15-08-96 VER 04

BOTTOM VIEW

AC−220

POWER AMP/EQ P.C.BOARD

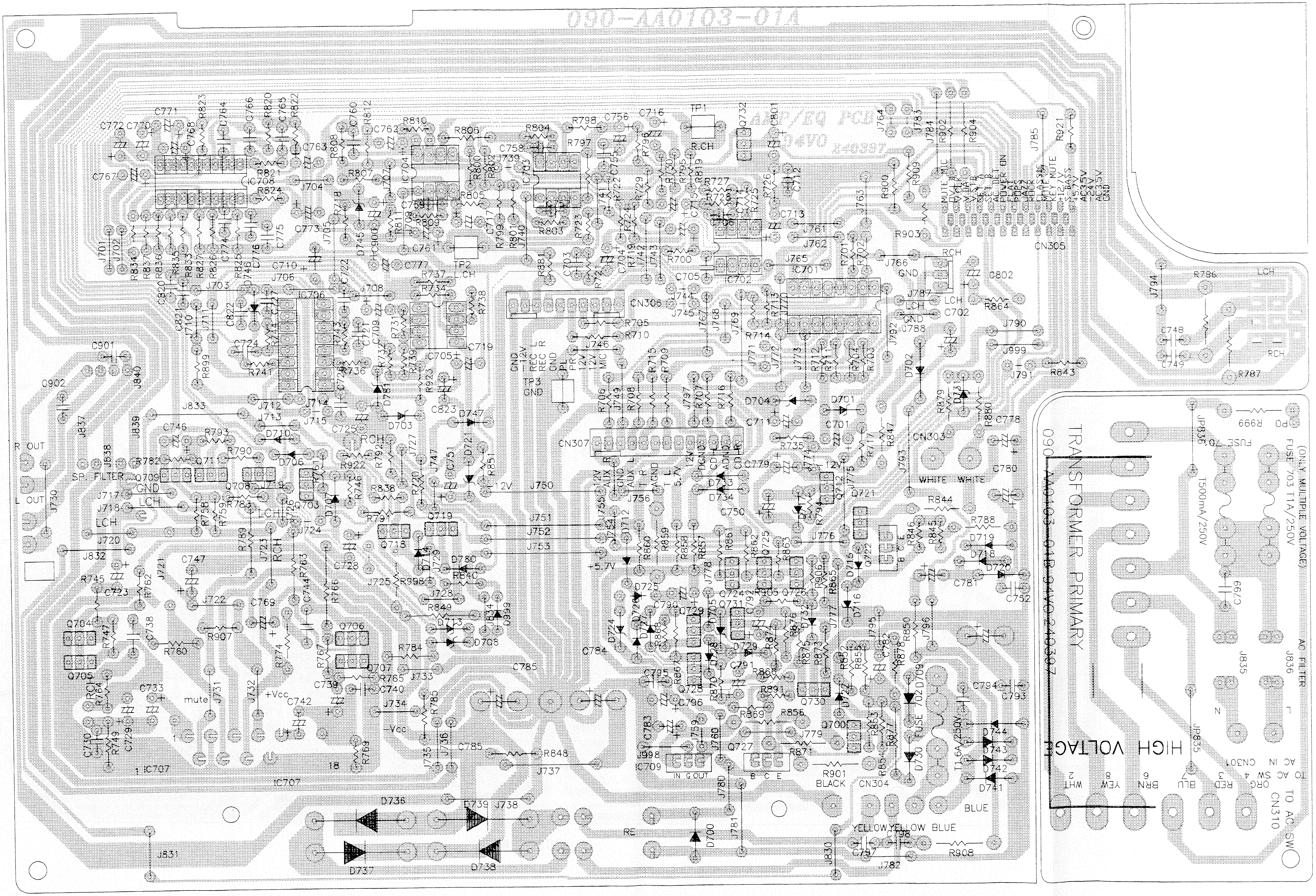


CAUTION
TO PREVENT FIRE HAZARD, REPLACE TYPE FUSE ONLY WITH SAME
ATTENTION
REMPLACEZ UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE.
FLOW
A
B
C
D
E
F
1
2
3
4
5
6
090-AA0103-01A
AMP/EQ PCB
240397 94V0
CN305
CN306
CN307
CN303
CN304
CN310
CN301
TRANSFORMER PRIMARY
090-AA0103-01B 94V0 240397
HIGH VOLTAGE
CAUTION
ATTENTION
FUSE 701 T500mA/250V
FUSE 703 T1A/250V (ONLY MULTIPLE VOLTAGE)
FUSE 707 T1.6A/250V
AC FILTER
AC IN
TO AC SW
WHT YEW BRN BLU RED ORG
BLUE
BLUE YELLOW YELLOW
BLACK
WHITE WHITE
R OUT
L OUT
SP. FILTER
LCH
RCH
GND
+Vcc
-Vcc
mute
IC701
IC705
IC706
IC707
IC708
IC709
TP1
TP2
TP3

TOP VIEW

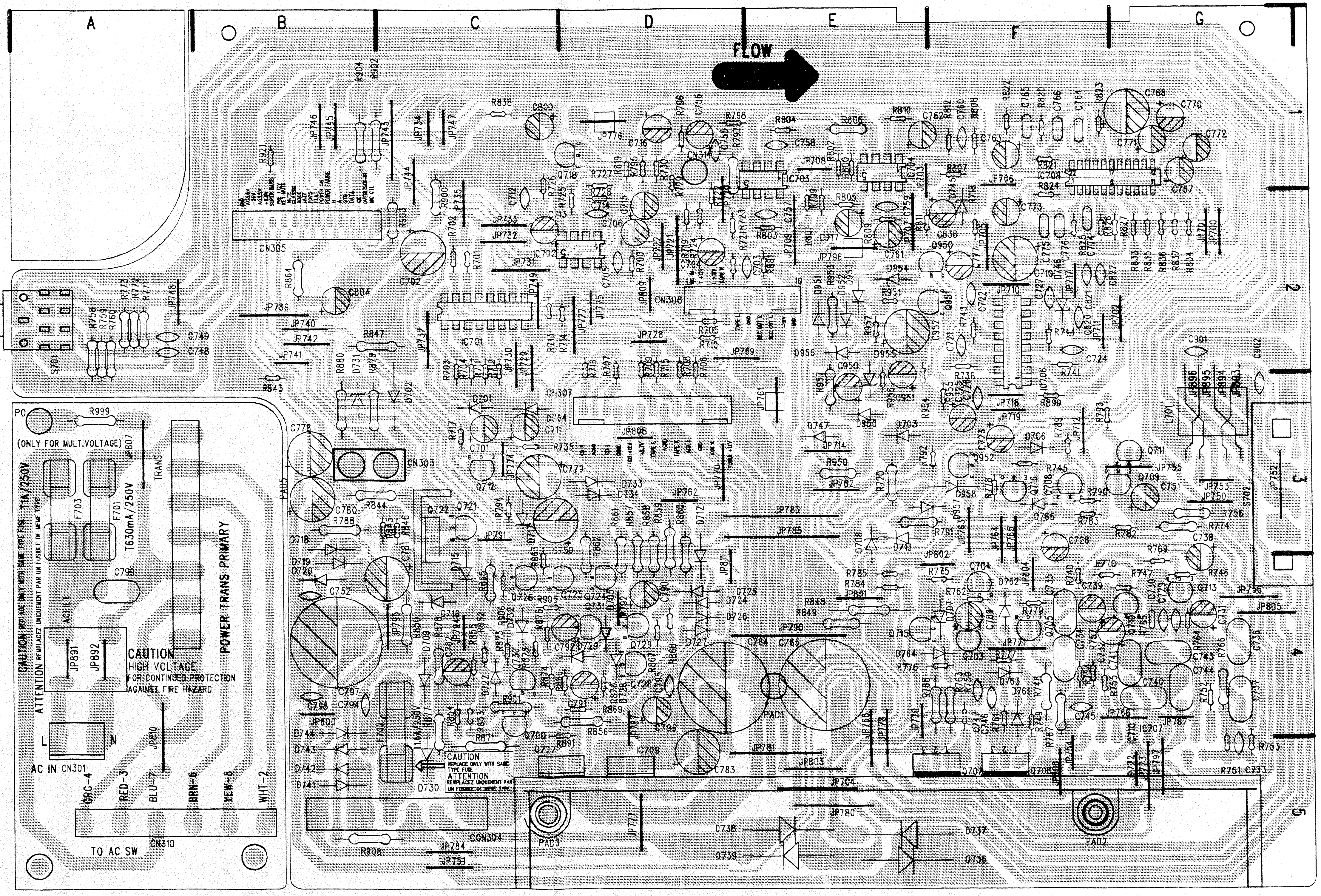
AC-220

POWER AMP/EQ P.C.BOARD


090-AA0103-01A
AMP/EQ PCB
94VO
R OUT
L OUT
SP. FILTER
GND
LCH
RCH
mute
+Vcc
-Vcc
IC701
IC702
IC703
IC704
IC705
IC706
IC707
IC708
IC709
CN303
CN304
CN305
CN306
CN307
CN310
CN301
TP1
TP2
TP3
MUTE MIC
POWER ON
KEY MUTE
AC35V
GND
WHITE
WHITE
BLACK
BLUE
YELLOW
YELLOW
BLUE
FUSE 701 T1.6A/250V
FUSE 702
FUSE 703 T1A/250V
(ONLY MULTIPLE VOLTAGE)
1500mA/250V
TRANSFORMER PRIMARY
HIGH VOLTAGE
AC FILTER
AC IN
TO AC SW
WHT
YEW
BRN
BLU
RED
ORG
IN G OUT
B C E

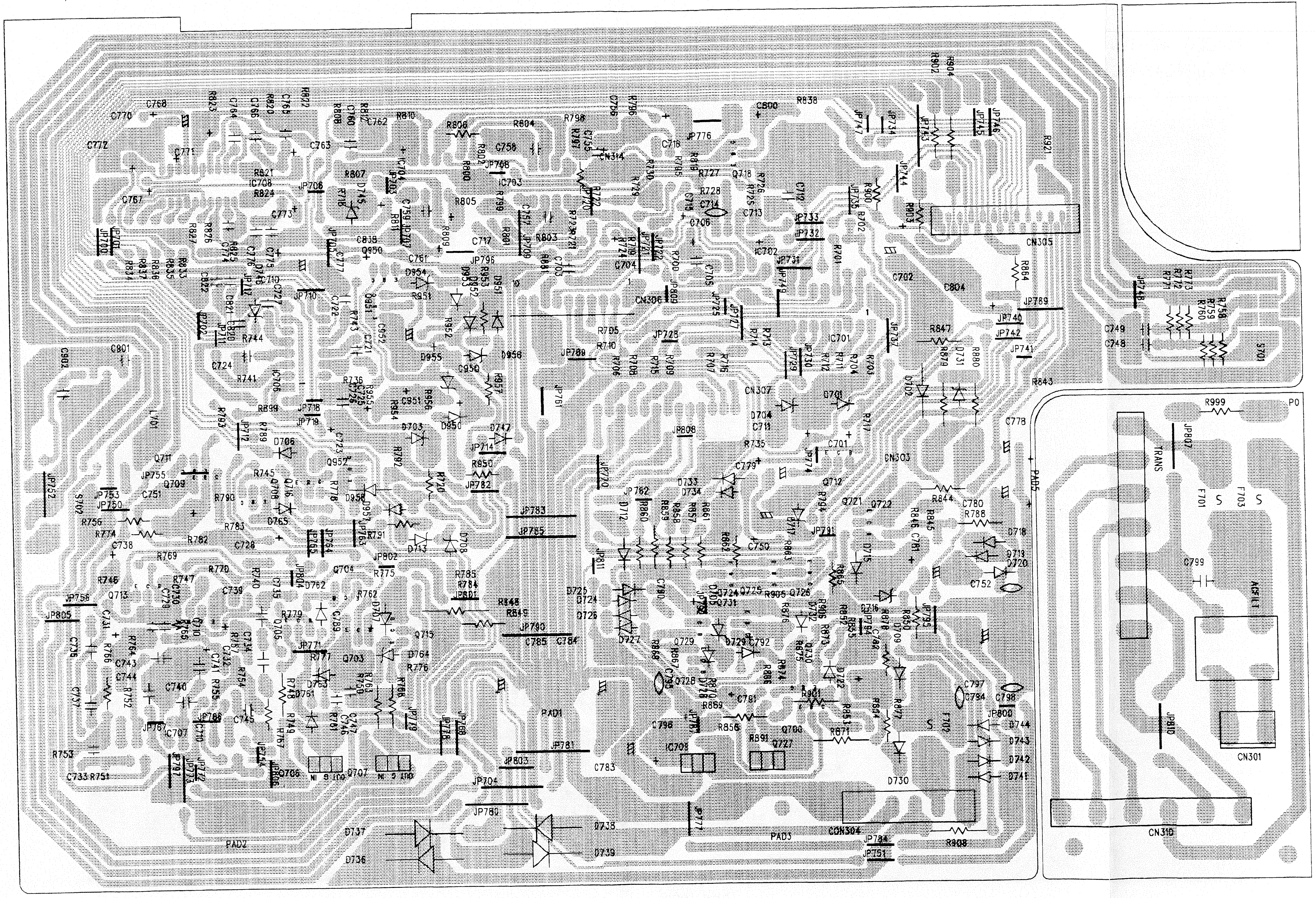
BOTTOM VIEW

AC-320
POWER AMP/EQ P.C.BOARD


A
B
C
D
E
F
G
1
2
3
4
5
FLOW
CN305
CN306
CN307
CN303
IC701
IC702
IC703
IC704
IC707
IC708
IC709
S701
S702
(ONLY FOR MULT.VOLTAGE)
R999
PO
JP807
TRANS
T1A/250V
T630mA/250V
F703
F701
F702
T1.6A/250V
C798
ACFILT
JP891
JP892
CAUTION REPLACE ONLY WITH SAME TYPE FUSE
ATTENTION REMPLACEZ UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE
CAUTION
HIGH VOLTAGE
FOR CONTINUED PROTECTION
AGAINST FIRE HAZARD
POWER TRANS PRIMARY
L
N
AC IN CN301
JP810
ORG-4
RED-3
BLU-7
BRN-6
YEW-8
WHT-2
TO AC SW
CN310
C752
C778
PAD1
PAD2
PAD3
CN304
R808
JP784
JP751
D738
D739
D737
D736
C783
C784
C785
L701
JP752

TOP VIEW

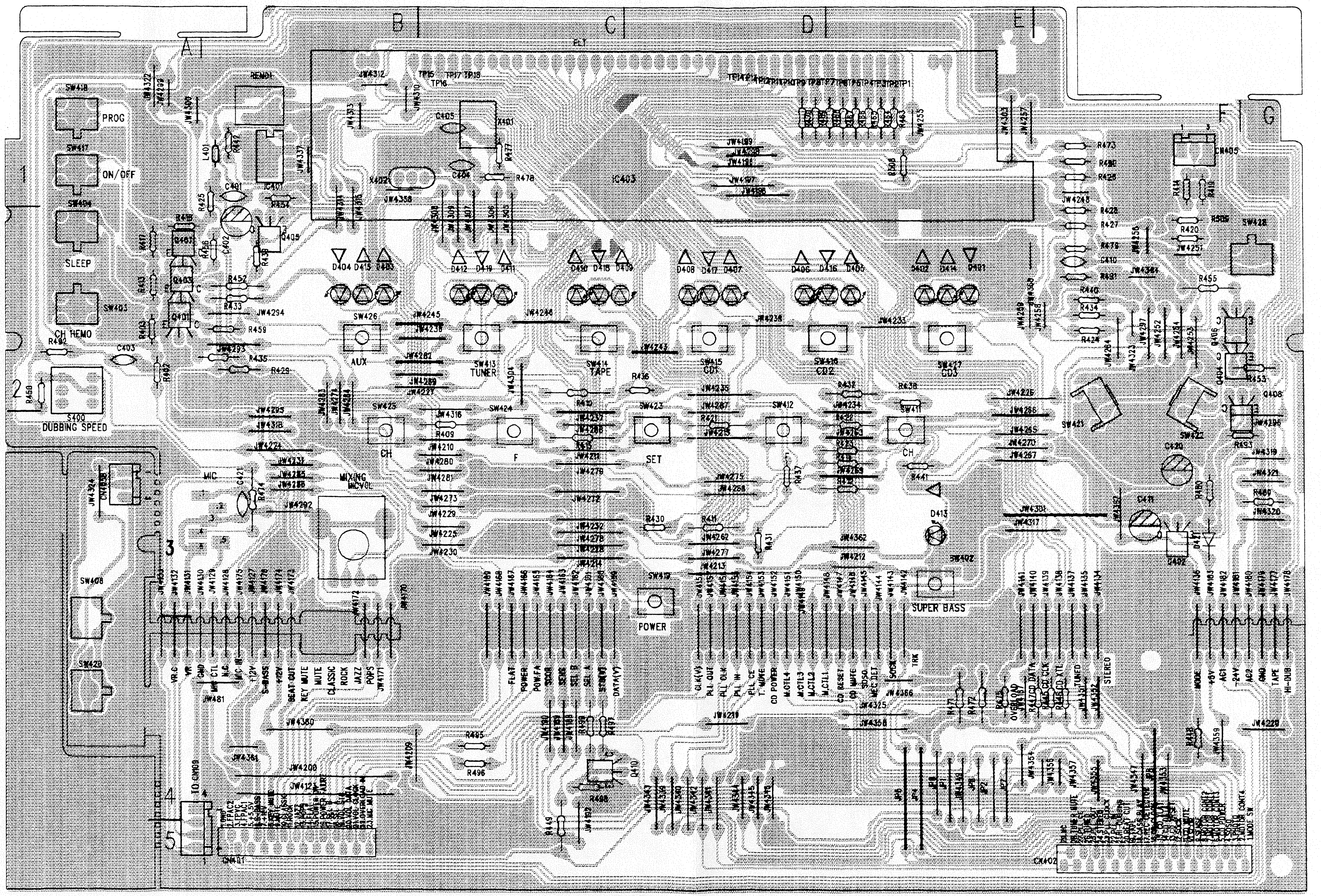
AC-320
POWER AMP/EQ P.C.BOARD


CN305
CN306
CN307
CN303
CN304
CN310
CN301
CN314
TRANS
PAD1
PAD2
PAD3
PAD5
F701
F702
F703
ACFIL1
S700
S702
PO
R999

BOTTOM VIEW

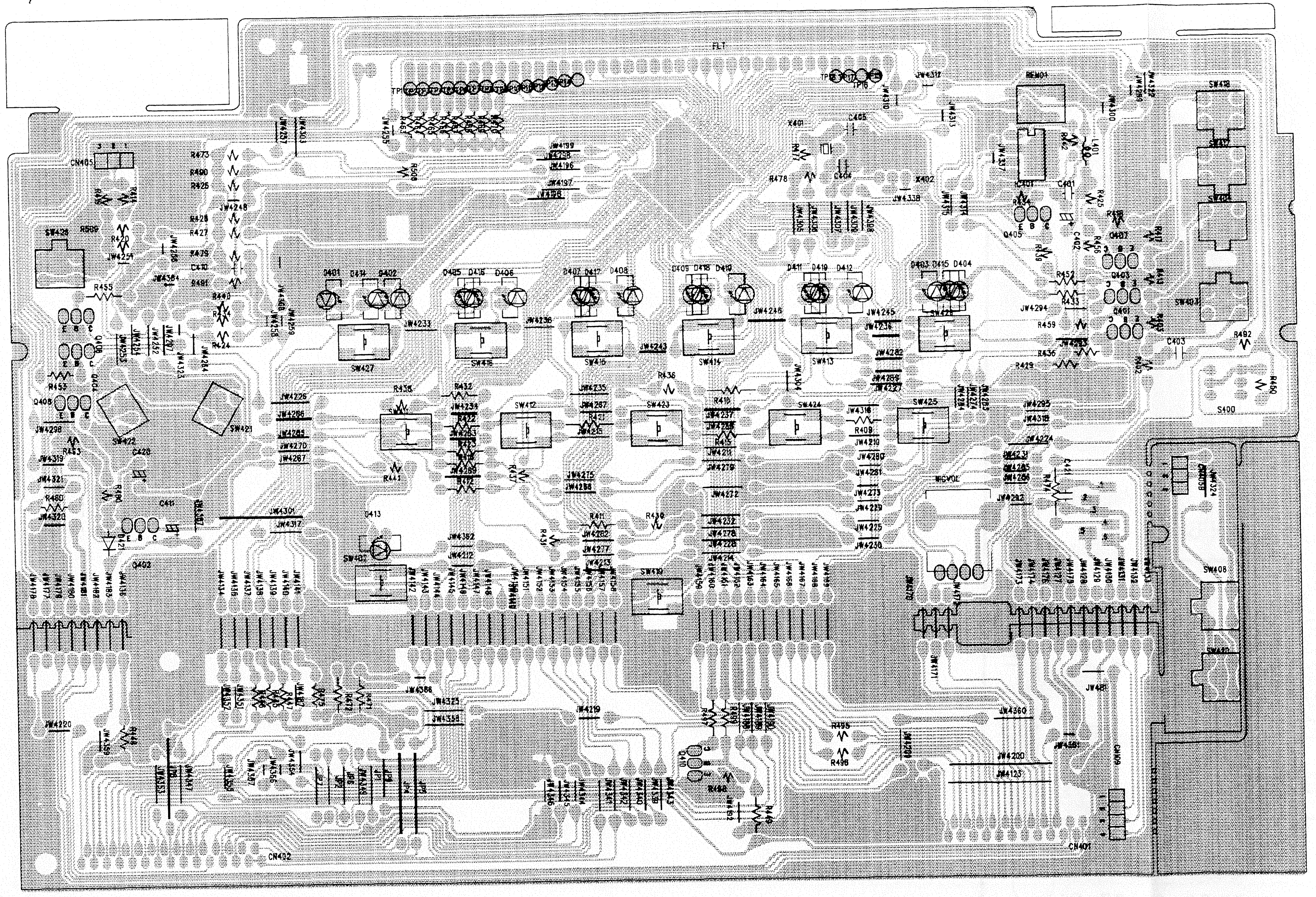
AC-220 AC-320

KEY/DISPLAY P.C.BOARD


A
B
C
D
E
F
G
1
2
3
4
5
SW418
PROG
SW417
ON/OFF
SW404
SLEEP
SW403
CH MEMO
S400
DUBBING SPEED
IC403
FLT
SW426
AUX
SW413
TUNER
SW414
TAPE
SW415
CD1
SW416
CD2
SW417
CD3
SW425
CH
SW424
F
SW423
SET
SW412
SW411
CH
SW421
SW422
SW428
SW419
POWER
SW402
SUPER BASS
SW408
SW420
MIC
MIXING
MIC VOL
D413
Q411
Q402
CN402
CN401
TO CN409

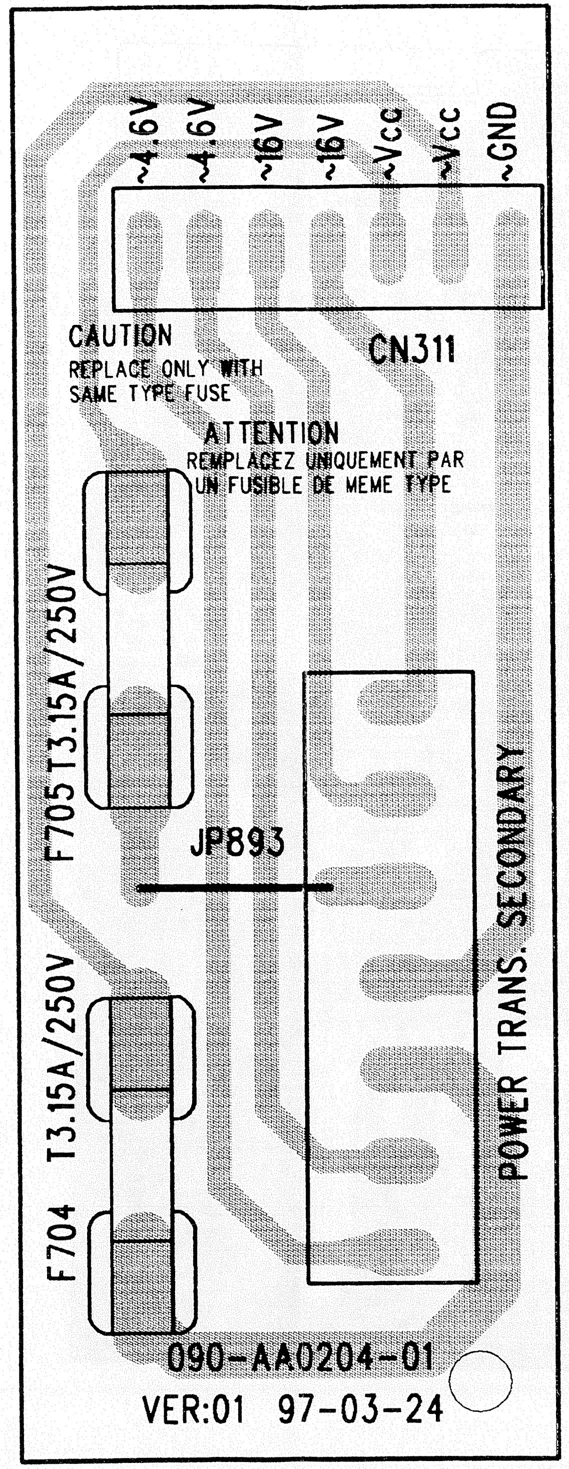
TOP VIEW

AC-220 AC-320
KEY/DISPLAY P.C.BOARD


FLT
CN405
SW426
SW427
SW416
SW415
SW414
SW413
SW412
SW423
SW424
SW425
SW422
SW421
SW402
SW410
SW408
S400
MICVOL
CN402
CN401

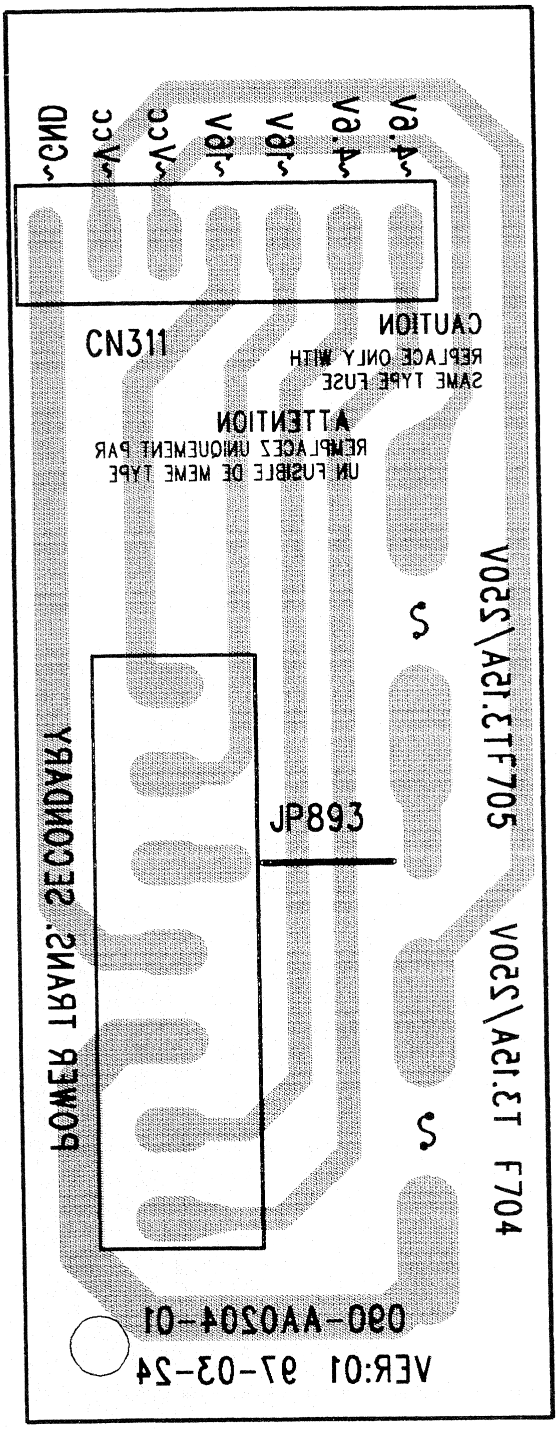
BOTTOM VIEW

AC-220 AC-320
POWER TRANS SECONDARY P.C. BOARD


~4.6V
~4.6V
~16V
~16V
~Vcc
~Vcc
~GND
CN311
CAUTION
REPLACE ONLY WITH
SAME TYPE FUSE
ATTENTION
REMPLACEZ UNIQUEMENT PAR
UN FUSIBLE DE MEME TYPE
F705 T3.15A/250V
JP893
F704 T3.15A/250V
POWER TRANS. SECONDARY
090-AA0204-01
VER:01 97-03-24

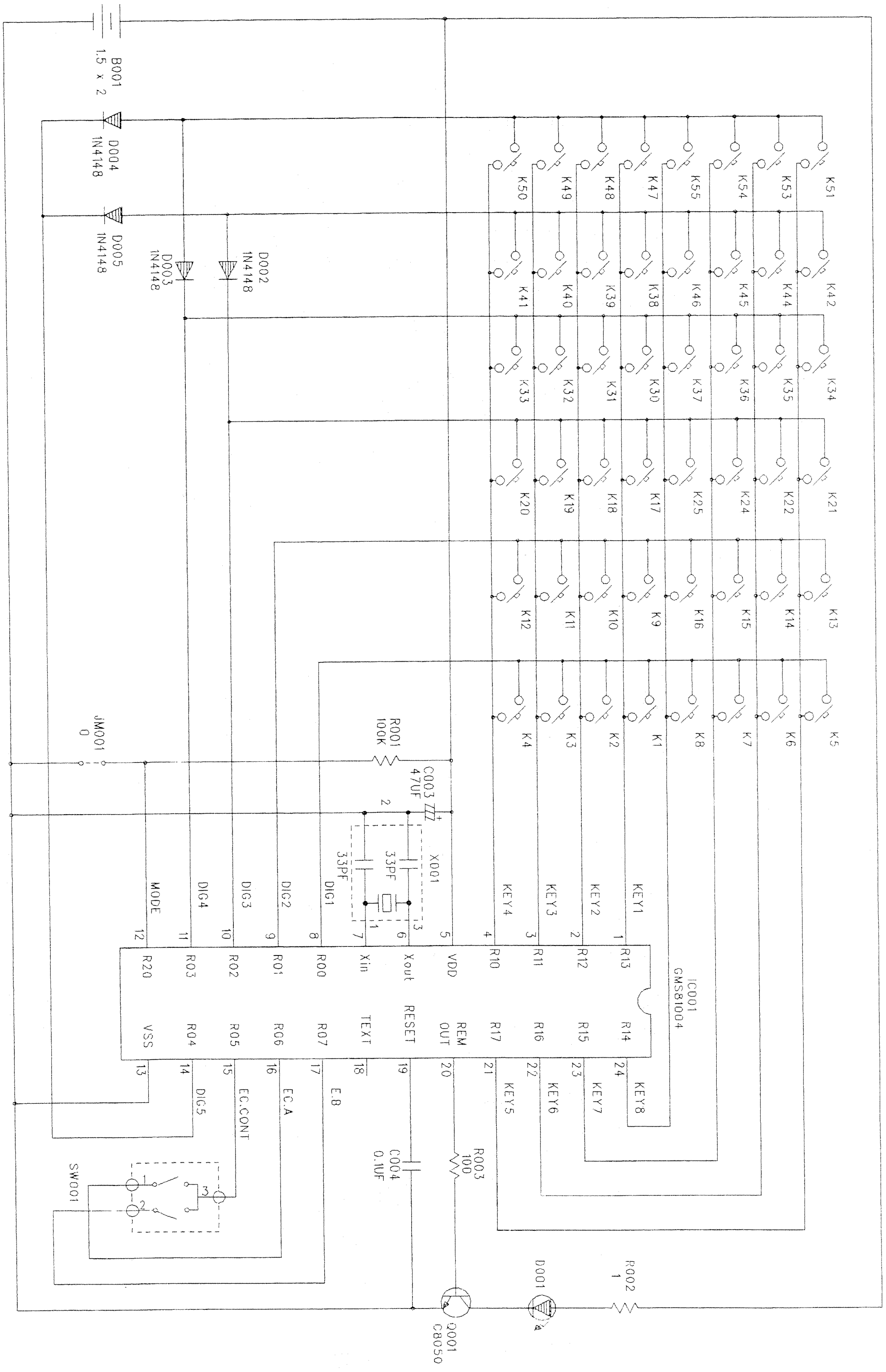
TOP VIEW

AC-220 AC-320
POWER TRANS SECONDARY P.C. BOARD


~GND
~Vcc
~Vcc
~16V
~16V
~6.4V
~6.4V
CN311
CAUTION
REPLACE ONLY WITH
SAME TYPE FUSE
ATTENTION
REMPLACEZ UNIQUEMENT PAR
UN FUSIBLE DE MEME TYPE
T3.15A/250V F705
JP893
T3.15A/250V F704
POWER TRANS SECONDARY
090-AA0204-01
VER:01 97-03-24

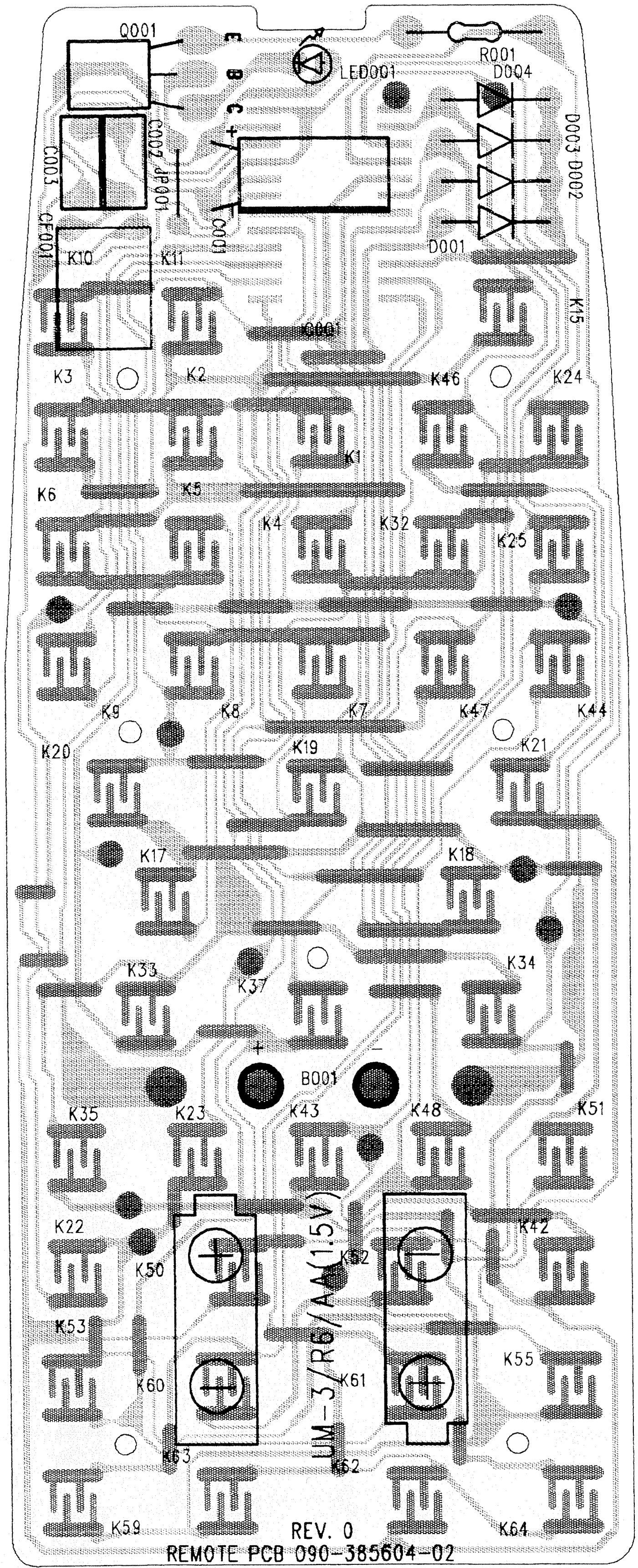
BOTTOM VIEW

X. REMOTE HANDSET MANUAL



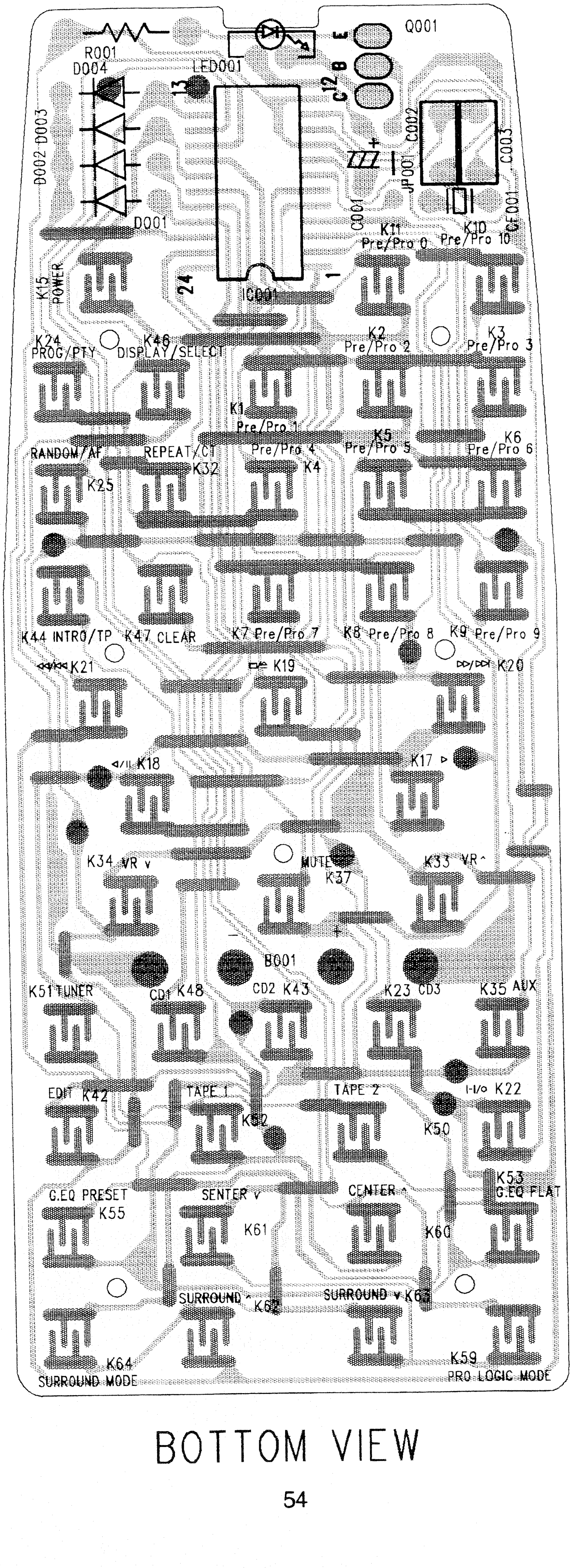
B001
1.5 x 2
D004
1N4148
D005
1N4148
D003
1N4148
D002
1N4148
K50
K49
K48
K47
K55
K54
K53
K51
K41
K40
K39
K38
K46
K45
K44
K42
K33
K32
K31
K30
K37
K36
K35
K34
K20
K19
K18
K17
K25
K24
K22
K21
K12
K11
K10
K9
K16
K15
K14
K13
K4
K3
K2
K1
K8
K7
K6
K5
JM001
0
R001
100K
C003
47UF
X001
33PF
33PF
MODE
DIG4
DIG3
DIG2
DIG1
KEY4
KEY3
KEY2
KEY1
IC001
GMS81004
R20
R03
R02
R01
R00
Xin
Xout
VDD
R10
R11
R12
R13
VSS
R04
R05
R06
R07
TEXT
RESET
REM OUT
R17
R16
R15
R14
DIG5
EC.CONT
EC.A
E.B
KEY5
KEY6
KEY7
KEY8
SW001
C004
0.1UF
R003
100
D001
R002
1
Q001
C8050

REMOTE P.C.BOARD


Q001
E
B
C
LED001
R001
D004
D003
D002
D001
+
C002
JP001
C003
CF001
C001
K10
K11
IC001
K15
K3
K2
K46
K24
K1
K6
K5
K4
K32
K25
K9
K8
K7
K47
K44
K20
K19
K21
K17
K18
K33
K37
K34
+
B001
−
K35
K23
K43
K48
K51
K22
K50
K52
K42
UM-3/R6/AA(1.5V)
K53
K60
K61
K55
K63
K62
K59
REV. 0
K64
REMOTE PCB 090-385604-02

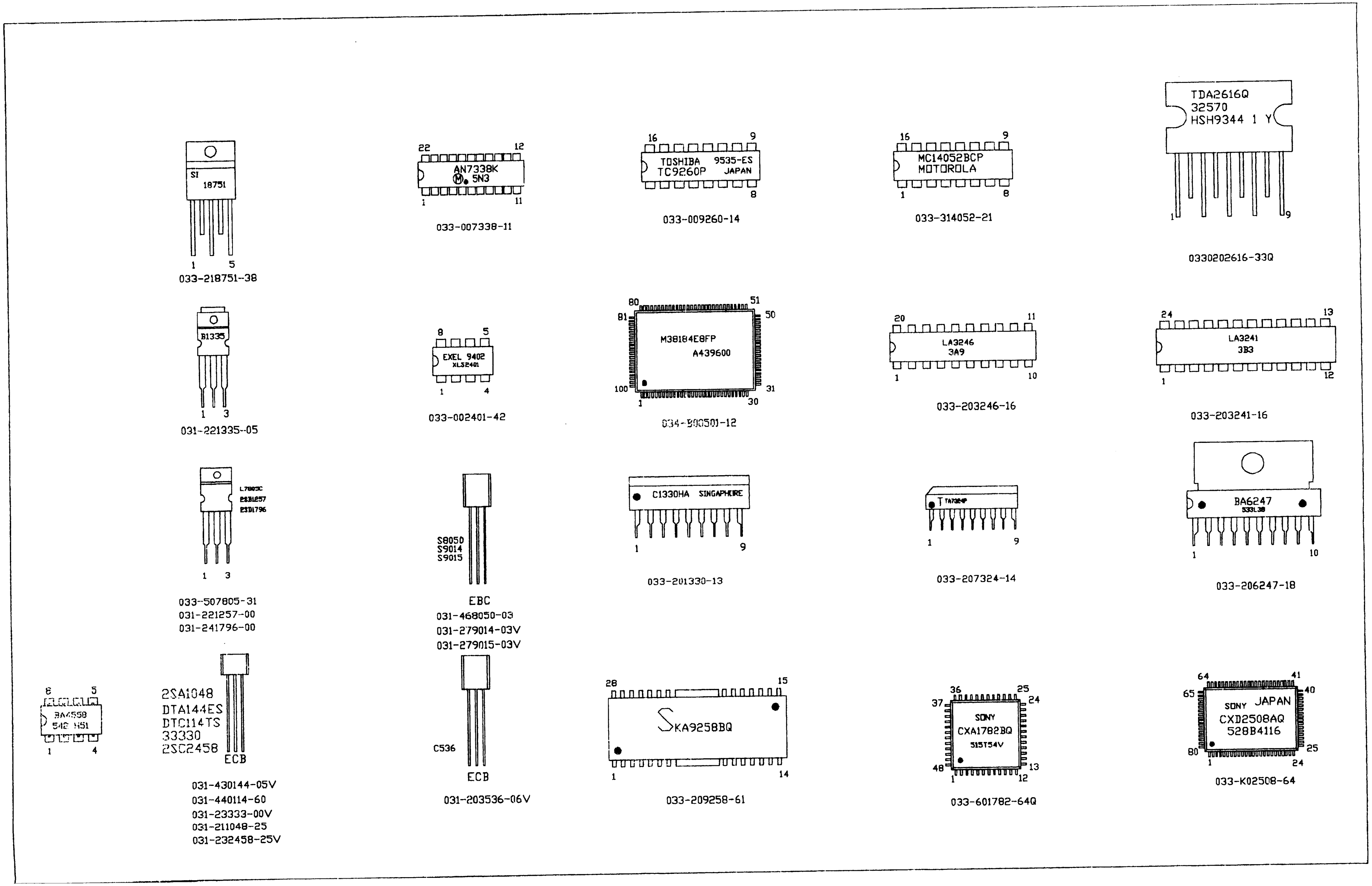
TOP VIEW

REMOTE P.C.BOARD


R001
D004
LED001
Q001
E
B
C
12
13
D002
D003
D001
IC001
24
1
C001
JP001
C002
C003
CF001
+
K11
Pre/Pro 0
K10
Pre/Pro 10
K15
POWER
K24
PROG/PTY
K46
DISPLAY/SELECT
K2
Pre/Pro 2
K3
Pre/Pro 3
K1
Pre/Pro 1
RANDOM/AF
REPEAT/CT
K32
Pre/Pro 4
K4
K5
Pre/Pro 5
K6
Pre/Pro 6
K25
K44 INTRO/TP
K47 CLEAR
K7 Pre/Pro 7
K8 Pre/Pro 8
K9 Pre/Pro 9
K21
K19
K20
K18
K17
K34 VR ∨
MUTE
K37
K33 VR ^
−
+
B001
K51 TUNER
CD1 K48
CD2 K43
K23 CD3
K35 AUX
EDIT K42
TAPE 1
K52
TAPE 2
K22
K50
K53
G.EQ FLAT
G.EQ PRESET
K55
SENTER ∨
K61
CENTER ^
K60
SURROUND ^
K62
SURROUND ∨ K63
K64
SURROUND MODE
K59
PRO LOGIC MODE

BOTTOM VIEW

X. REMOTE HANDSET MANUAL


SI
18751
1
5
033-218751-38
AN7338K
5N3
22
12
1
11
033-007338-11
TOSHIBA 9535-ES
TC9260P JAPAN
16
9
8
033-009260-14
MC14052BCP
MOTOROLA
16
9
1
8
033-314052-21
TDA2616Q
32570
HSH9344 1 Y
1
9
0330202616-33Q
B1335
1
3
031-221335--05
EXEL 9402
XLS2401
8
5
1
4
033-002401-42
M38184E8FP
A439600
80
51
81
50
100
31
1
30
034-900501-12
LA3246
3A9
20
11
1
10
033-203246-16
LA3241
3B3
24
13
1
12
033-203241-16
L7805C
2SB1257
2SD1796
1
3
033-507805-31
031-221257-00
031-241796-00
S8050
S9014
S9015
EBC
031-468050-03
031-279014-03V
031-279015-03V
C1330HA SINGAPORE
1
9
033-201330-13
TA7324P
1
9
033-207324-14
BA6247
5331.38
1
10
033-206247-18
BA4558
542 H51
8
5
1
4
2SA1048
DTA144ES
DTC114TS
33330
2SC2458
ECB
031-430144-05V
031-440114-60
031-23333-00V
031-211048-25
031-232458-25V
C536
ECB
031-203536-06V
KA9258BQ
28
15
1
14
033-209258-61
SONY
CXA1782BQ
515T54V
36
25
37
24
48
13
1
12
033-601782-64Q
SONY JAPAN
CXD2508AQ
528B4116
64
41
65
40
80
25
1
24
033-K02508-64

XII. ABBREVIATIONS

TUNER

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MIcro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultiPleX
ANT	ANTenna	MW	Medium Wave(frequency)
BATT	BATTery	NC	No Connection
BLK	BLocK	NFB	Negative Feed Back
BUFF	BuFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETect(DETector)	PLL	Phase Locked Loop
FLD	FLuorescent Display	Q.D	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFerence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institute of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	Switch: Short Wave(frequency)
LCH	Left CHannel	THD	Total Harmonic Distortion
LED	Light Emitting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave (Frequency)	VR	Variable Resistor
X'TAL	Crystal		

COMPACT DISC

ABBREVIATION	EXPLANATION
A-D	Analog to Digital(Converter)
ADC	Analog Code Decimal (Converter)
BCD	Binary Code Decimal
BPI	Bits Per Inch
CD	Compact Disc
CIRC	Cross Interleaving & Reed Solomon Coding
CLV	Constant Linear Velocity
CP	Clock Pulses
CRCC	Cyclic Redundancy Check Codes
D Level	Decision Level
D-A	Digital to Analog(Converter)
DAC	Digital to Analog(Converter)
DAD	Digital Audio Disc
DEM	Dynamic Element Matching
DPD	Differential Phase Detection
DSV	Digital sum Value
EFM	Eight to Fourteen Modulation
EX-OR	Exclusive OR
FCI	Flux Changes per Inch
FIR	Finite Impulse Response
FP	Front Pulse
FPG	Front Pulse Gate
F	Frequency of Sampling
GF	Galois Field
H&V(Parity)	Horizontal & Vertical
IIR	Infinite Impulse Response
KB	Kilo Bits
L,L1,L2,ect.	Data for Left Channel
LPF	Low Pass Filter
LSB	Least Significant Bit

ABBREVIATION	EXPLANATION
Mb	Mega Bits
MDA	Motor Drive Amplifier
MFM	Modified Frequency Modulation
MW	Mono-stable Multivibrator
M2FM	Modified Modified Frequency Modulation
MOD2	Module 2 (Addition)
MP	Microprocessor
MSB	Most Significant Bit
NA	Numerical Aperture
NRZ	Non Return to Zero
NRZ-I	Non Return to Zero Inverted
P	Parity Data
PAM	Pulse Amplitude Modulation
PCM	Pulse Code Modulation
PD	Phase Detector
PE	Phase Encode
PLL	Phase locked Loop
PNM	Pulse Number Modulation
PPM	Pulse Phase Modulation
PWM	Pulse Width Modulation
Q	Parity Data
R,R1,R2,ect.	Data for Right Channel
RAM	Random Access Memory
RPG	Rear Pulse Gate
SCOOP	Self Coupled Optical Pick-up
S&H	Sample & Hold
S/N	Signal to Noise Ratio
SSG	Standard Signal Generator
SYSCON	SYStem CONtrol

CASSETTE

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	Minute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	MultiPlex
AR	Anti Recording	NC	Not connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEFB	and Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAPM	CAPstan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	OR	Quick Reverse
CONT	CONTinuance	RCH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECord (RECording)
		REV	REVerse
CS	Chip Select	ROT	ROTation
D/A	Digital/Analog	REW	REWind
DC	Direct Current	SEC	SECond
DET	DETector	SELE	SELEctor
DISCRI	DISCRIminator	SENS	SENSitivity
DUB	DUBbing	SEPP	Single Ended Push Pull
EQ	EQualizer	SIG	SIGnal
FF or (F.FWD)	Fast Forward	SPECT	SPECTrum
FLD	FLuorescent Display	STD	STanDard
FREQ	FREQuency	SW	SWitch
FWD	ForWarD	SYSCON	SYStem CONtrol
GND	GrouND	TP	TEST Point
H	High	TRIG	TRIGa
HPF	High Pass Filter	VCA	Voltage Control Attenuator
IND	INDicator	VOL	Volume
IPLS	Instant Program Location System	VOLT	VOLTage
L	Low	VR	Variable Resistor
LCH	Left Channel	XTAL	crysTAL
LEDLight	Emitting Diode	X1	Normal speed
MEMO	MEMOry	X2	Double speed
MICOM	MIcroCOMputer		

AMPLIFIER

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouNd
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECord
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder